According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : ShellSol A150

Product code : Q7493

Registration number EU : 01-2119463588-24-0002

Synonyms : Hydrocarbons, C10, aromatics, >1% naphthalene

EC-No. : 919-284-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- : Industrial Solvent.

stance/Mixture Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

Uses advised against : This product must not be used in applications other than the

above without first seeking the advice of the supplier.

This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the sup-

plier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : Shell Chemicals Europe B.V.

PO Box 2334 3000 CH Rotterdam

Netherlands

Telephone : +31 (0)10 441 5137 / +31 (0)10 441 5191 Telefax : +31 (0)20 716 8316/ +31 (0)20 713 9230

Contact for Safety Data : sccmsds@shell.com

Sheet

1.4 Emergency telephone number

+44 (0) 1235 239 670 (This telephone number is available 24 hours per day, 7 days per week)

Other information : SHELLSOL is a trademark owned by Shell Trademark Man-

agement B.V. and Shell Brands Inc. and used by affiliates of

Shell plc.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification REGULATION (EC) No 1272/2008

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters air-

ways.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Specific target organ toxicity - single exposure, Category 3, Narcotic effects

H336: May cause drowsiness or dizziness.

Carcinogenicity, Category 2 H351: Suspected of causing cancer.

Long-term (chronic) aquatic hazard, Cat-

egory 2

H411: Toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements EUH066: Repeated exposure may cause skin dry-

ness or cracking.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :







Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

Not classified as a physical hazard according to CLP

criteria.

HEALTH HAZARDS:

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.H351 Suspected of causing cancer.

ENVIRONMENTAL HAZARDS:

H411 Toxic to aquatic life with long lasting effects.

Supplemental Hazard

Statements

EUH066

Repeated exposure may cause skin dryness or

cracking.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/ doctor.

P331 Do NOT induce vomiting.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

Storage:

No precautionary phrases.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

2.3 Other hazards

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

May form flammable/explosive vapour-air mixture.

This material is a static accumulator.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge.

If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable airvapour mixtures can occur.

SECTION 3: Composition/information on ingredients

3.1 Substances

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
Hydrocarbons, C10, aro-	Not Assigned	< 100
matics, >1% naphthalene	919-284-0	

Further information

Contains:

Chemical name	Identification number	Classification	Concentration (% w/w)
Naphthalene	91-20-3, 202-049-5	Acute Tox.4; H302 Carc.2; H351 Aquatic Acute1; H400 Aquatic Chronic1; H410	0 - 10
Cumene	98-82-8, 202-704-5	Flam. Liq.3; H226 Asp. Tox.1; H304 STOT SE3; H335 Carc.1B; H350 Aquatic Chronic2; H411	0 - 0,099
Benzene	71-43-2, 200-753-7	Flam. Liq.2; H225 Asp. Tox.1; H304 Skin Irrit.2; H315 Eye Irrit.2; H319 Muta.1B; H340 Carc.1A; H350 STOT RE1; H372 Aquatic Chronic3; H412	0 - 0,01

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024 8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Not expected to be a health hazard when used under normal

conditions.

Protection of first-aiders : When administering first aid, ensure that you are wearing the

appropriate personal protective equipment according to the

incident, injury and surroundings.

If inhaled : Remove to fresh air. If rapid recovery does not occur,

transport to nearest medical facility for additional treatment.

In case of skin contact : Remove contaminated clothing. Flush exposed area with wa-

ter and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

In case of eye contact : Flush eye with copious quantities of water.

Remove contact lenses, if present and easy to do. Continue

rinsing.

If persistent irritation occurs, obtain medical attention.

If swallowed : Call emergency number for your location / facility.

If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Breathing of high vapour concentrations may cause central

nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and

death.

No specific hazards under normal use conditions.

Skin irritation signs and symptoms may include a burning sen-

sation, redness, or swelling.

No specific hazards under normal use conditions.

Eye irritation signs and symptoms may include a burning sen-

sation, redness, swelling, and/or blurred vision.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024 8.0 27.12.2024 800001007476 Print Date 03.01.2025

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest

congestion, shortness of breath, and/or fever.

If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Call a doctor or poison control center for guidance.

Potential for chemical pneumonitis.

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Foam, water spray or fog. Dry chemical powder, carbon diox-

ide, sand or earth may be used for small fires only.

Unsuitable extinguishing

media

Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Clear fire area of all non-emergency personnel. Hazardous combustion products may include:

A complex mixture of airborne solid and liquid particulates and

gases (smoke). Carbon monoxide.

Unidentified organic and inorganic compounds.

Flammable vapours may be present even at temperatures

below the flash point.

The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

Will float and can be reignited on surface water.

5.3 Advice for firefighters

Special protective equipment:

for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to

relevant Standards (e.g. Europe: EN469).

Specific extinguishing meth-

ods

Standard procedure for chemical fires.

Further information : Keep adjacent containers cool by spraying with water.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Observe all relevant local and international regulations. Notify authorities if any exposure to the general public or the

environment occurs or is likely to occur.

Local authorities should be advised if significant spillages

cannot be contained.

6.1.1 For non emergency personnel: Avoid contact with skin, eyes and clothing.

Isolate hazard area and deny entry to unnecessary or unpro-

tected personnel.

Do not breathe fumes, vapour. Do not operate electrical equipment. 6.1.2 For emergency responders:

Avoid contact with skin, eyes and clothing.

Isolate hazard area and deny entry to unnecessary or unpro-

tected personnel.

Do not breathe fumes, vapour. Do not operate electrical equipment.

6.2 Environmental precautions

Environmental precautions

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bond-

ing and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : For small liquid spills (< 1 drum),

For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove

contaminated soil and dispose of safely.

For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely

Ventilate contaminated area thoroughly.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

If contamination of site occurs remediation may require specialist advice.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : Avoid breathing of or direct contact with material. Only use in

well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see

Section 8 of this Safety Data Sheet.

Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

nateriai.

Ensure that all local regulations regarding handling and stor-

age facilities are followed.

Advice on safe handling : Avoid inhaling vapour and/or mists.

Avoid contact with skin, eyes and clothing.

Extinguish any naked flames. Do not smoke. Remove ignition

sources. Avoid sparks.

Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

Bulk storage tanks should be diked (bunded).

When using do not eat or drink.

The vapour is heavier than air, spreads along the ground and

distant ignition is possible.

Product Transfer : Even with proper grounding and bonding, this material can still

accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (≤ 1 m/s until fill pipe submerged to twice its diameter, then ≤ 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.

Refer to guidance under Handling section.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number: 800001007476 8.0 27.12.2024 Print Date 03.01.2025

Hygiene measures Wash hands before eating, drinking, smoking and using the

toilet. Launder contaminated clothing before re-use. Do not ingest. If swallowed, then seek immediate medical assistance.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Refer to section 15 for any additional specific legislation cov-

ering the packaging and storage of this product.

Further information on stor-

age stability

Storage Temperature:

Ambient.

Bulk storage tanks should be diked (bunded).

Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of

strict procedures and precautions.

Must be stored in a diked (bunded) well- ventilated area, away from sunlight, ignition sources and other sources of heat. Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not

harmful or toxic to man or to the environment.

Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to

reduce the risk.

The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flamma-

ble.

Packaging material Suitable material: For containers, or container linings use mild

steel, stainless steel., For container paints, use epoxy paint,

zinc silicate paint.

Unsuitable material: Avoid prolonged contact with natural,

butyl or nitrile rubbers.

: Do not cut, drill, grind, weld or perform similar operations on or Container Advice

near containers.

7.3 Specific end use(s)

Specific use(s) Please refer to section 16 and/or the annexes for the regis-

tered uses under REACH.

See additional references that provide safe handling practices for liquids that are determined to be static accumulators: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices

on Static Electricity).

IEC/TS 60079-32-1: Electrostatic hazards, guidance

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Naphthalene	91-20-3	GVI	10 ppm 50 mg/m3	HR OEL
	Further inforn	nation: 91/322/EEC		
Cumene	98-82-8	GVI	10 ppm 50 mg/m3	HR OEL
		nation: Classified as given in the directive	a substance that irritates the es, 2019/1831	skin (H315) or
Cumene		STEL	50 ppm 250 mg/m3	HR OEL
		nation: Classified as given in the directive	a substance that irritates the es, 2019/1831	skin (H315) or
Benzene	71-43-2	GVI	0,5 ppm 1,65 mg/m3	HR OEL
	such notice is egory 1A acc	given in the directive ording to Regulation	a substance that irritates the es, Substance classified as (EC) No. 1272/2008, Substa g to Regulation (EC) No. 127	carcinogen cat- ince classified
Benzene		TWA	0,25 ppm 0,8 mg/m3	Shell Internal Standard (SIS) for 8-12 hour TWA.
Benzene		STEL	2,5 ppm 8 mg/m3	Shell Internal Standard (SIS) for 15 min (STEL)

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Benzene	71-43-2	Benzene: 28 µg/l (Blood)	End of shift	HR BEI
		Benzene: 0.36 micromol per litre (Blood)	End of shift	HR BEI
		S-phenyl mercap- turic acid: 46 µg/g creatinine (Urine)	End of shift	HR BEI
		S-phenyl mercap- turic acid: 21.7 µmol/mol creati- nine (Urine)	End of shift	HR BEI

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Hydrocarbons, C10, aromatics, >1% naphthalene	Workers	Dermal	Long-term systemic effects	12,5 mg/kg bw/day
Hydrocarbons, C10, aromatics, >1% naphthalene	Workers	Inhalation	Long-term systemic effects	151 mg/m3
Hydrocarbons, C10, aromatics, >1% naphthalene	Consumers	Oral	Long-term systemic effects	7,5 mg/kg bw/day
Hydrocarbons, C10, aromatics, >1% naphthalene	Consumers	Inhalation	Long-term systemic effects	32 mg/m3
Hydrocarbons, C10, aromatics, >1% naphthalene	Consumers	Dermal	Long-term systemic effects	7,5 mg/kg bw/day
Naphthalene	Consumers	Oral	Long-term systemic effects	4,23 mg/kg
Benzene	Workers	Inhalation	Long-term systemic effects	0,8 mg/m3/ 8h

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Remarks:	e is a hydrocarbon with a complex, un	•
	entional methods of deriving PNECs and the to identify a single representative P	

8.2 Exposure controls

Engineering measures

Read in conjunction with the Exposure Scenario for your specific use contained in the Annex. The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Define procedures for safe handling and maintenance of controls.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.

Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.

Drain down system prior to equipment break-in or maintenance.

Retain drain downs in sealed storage pending disposal or subsequent recycle.

Personal protective equipment

Read in conjunction with the Exposure Scenario for your specific use contained in the Annex. The provided information is made in consideration of the PPE directive (Council Directive 89/686/EEC) and the CEN European Committee for Standardisation (CEN) standards.

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye protection : If material is handled such that it could be splashed into eyes,

protective eyewear is recommended. Approved to EU Standard EN166.

Hand protection

Remarks : Where hand contact with the product may occur the use of

gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: butyl-

rubber Nitrile rubber gloves.

Incidental contact/Splash protection: Nitrile rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Skin and body protection

Skin protection is not required under normal conditions of

use.

For prolonged or repeated exposures use impervious clothing

over parts of the body subject to exposure.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024 8.0 27.12.2024 800001007476 Print Date 03.01.2025

If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Stand-

ard, and provide employee skin care programmes.

Protective clothing approved to EU Standard EN14605.

Wear antistatic and flame-retardant clothing, if a local risk

assessment deems it so.

Respiratory protection : If engineering controls do not maintain airborne concentra-

tions to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing appa-

ratus.

Where air-filtering respirators are suitable, select an appro-

priate combination of mask and filter.

If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapours [Type A

boiling point > 65°C (149°F)] meeting EN14387.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : colourless

Odour : aromatic

Odour Threshold : Data not available

pour point : < 20 °C

Melting point/freezing point Data not available

Boiling point/boiling range : 179 - 214 °C

Flammability

Flammability (solid, gas) : Data not available

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / upper flammability limit

: 7 %(V)

Lower explosion limit / : 0,6 %(V)

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024 8.0 27.12.2024 800001007476 Print Date 03.01.2025

Lower flammability limit

Flash point : Typical 62 - 65,6 °C

Method: ASTM D-93 / PMCC

Auto-ignition temperature : 449 - 510 °C

Method: ASTM E-659

Decomposition temperature

Decomposition tempera-

ture

Not applicable

pH : Not applicable

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Typical 1,2 mm2/s (25 °C)

Method: ASTM D445

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

Data not available

Vapour pressure : 0,09 kPa (20 °C)

Relative density : 0,88 - 0,91 (20 °C)

Method: ASTM D4052

Density : Typical 893 kg/m3 (15 °C)

Method: ASTM D4052

Relative vapour density : 4,8

Particle characteristics

Particle size : Data not available

9.2 Other information

Explosive properties : Not applicable

Oxidizing properties : Data not available

Evaporation rate : 1,0

Method: ASTM D 3539, nBuAc=1

Conductivity: < 100 pS/m

The conductivity of this material makes it a static accumulator., A liquid is typically considered nonconductive if its con-

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

ductivity is below 100 pS/m and is considered semiconductive if its conductivity is below 10,000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives

can greatly influence the conductivity of a liquid

Surface tension : Data not available

Molecular weight : Data not available

SECTION 10: Stability and reactivity

10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

10.2 Chemical stability

No hazardous reaction is expected when handled and stored according to provisions Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

10.4 Conditions to avoid

Conditions to avoid : Avoid heat, sparks, open flames and other ignition sources.

In certain circumstances product can ignite due to static elec-

tricity.

10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

10.6 Hazardous decomposition products

Hazardous decomposition products are not expected to form during normal storage.

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of : Exposure may occur via inhalation, ingestion, skin absorption,

exposure skin or eye contact, and accidental ingestion.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

SDS Number: Date of last issue: 28.03.2024 Version Revision Date:

800001007476 Print Date 03.01.2025 8.0 27.12.2024

Acute toxicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

: LD50 (Rat): > 5000 mg/kg Acute oral toxicity

Remarks: Low toxicity

LC50 (Rat): > 2 - 20 mg/l Acute inhalation toxicity

Remarks: Low toxicity if inhaled.

Based on available data, the classification criteria are not met.

: LD50 (Rabbit): > 2000 mg/kg Acute dermal toxicity

Remarks: Low toxicity

Skin corrosion/irritation

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks Not irritating to skin.

Prolonged/repeated contact may cause defatting of the skin

which can lead to dermatitis.

Serious eye damage/eye irritation

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks : Not irritating to eye.

Respiratory or skin sensitisation

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks Not a sensitiser.

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Genotoxicity in vivo : Remarks: Not mutagenic.

Germ cell mutagenicity- As-

This product does not meet the criteria for classification in

sessment categories 1A/1B.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Carcinogenicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks : Limited evidence of carcinogenic effect

Carcinogenicity - Assess-

ment

This product does not meet the criteria for classification in

categories 1A/1B.

Material	GHS/CLP Carcinogenicity Classification
Hydrocarbons, C10, aromatics, >1% naphthalene	Carcinogenicity Category 2
Naphthalene	Carcinogenicity Category 2
Cumene	Carcinogenicity Category 1B
Benzene	Carcinogenicity Category 1A

Material	Other Carcinogenicity Classification	
Naphthalene	IARC: Group 2B: Possibly carcinogenic to humans	
Cumene	IARC: Group 2B: Possibly carcinogenic to humans	
Benzene	IARC: Group 1: Carcinogenic to humans	

Reproductive toxicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Effects on fertility :

Remarks: Causes foetotoxicity in animals at doses which are maternally toxic., Not a developmental toxicant., Based on available data, the classification criteria are not met., Does not

impair fertility.

Reproductive toxicity - As-

sessment

This product does not meet the criteria for classification in

categories 1A/1B.

STOT - single exposure

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks : May cause drowsiness and dizziness.

High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

STOT - repeated exposure

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks : Kidney: caused kidney effects in male rats which are not con-

sidered relevant to humans

Aspiration toxicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

Further information

Product:

Remarks : Unless indicated otherwise, the data presented is representa-

tive of the product as a whole, rather than for individual com-

ponent(s).

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Remarks : Classifications by other authorities under varying regulatory

frameworks may exist.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Toxicity to fish : Remarks: LC/EC/IC50 >1 - <=10 mg/l

Toxic

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: LC/EC/IC50 >1 - <=10 mg/l

Toxic

Toxicity to algae/aquatic plants : Remarks: LC/EC/IC50 >1 - <=10 mg/l

Toxic

Toxicity to microorganisms

Remarks: Data not available

Toxicity to fish (Chronic tox-

icity)

Remarks: Data not available

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

Remarks: Data not available

12.2 Persistence and degradability

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Biodegradability : Remarks: Readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

12.3 Bioaccumulative potential

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Bioaccumulation : Remarks: Has the potential to bioaccumulate.

12.4 Mobility in soil

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Mobility : Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Assessment : The substance does not fulfill all screening criteria for persis-

tence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number: 8.0 27.12.2024 800001007476 Print Date 03.01.2025

> have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological infor-

mation

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Components:

Hydrocarbons, C10, aromatics, >1% naphthalene:

Additional ecological infor-

mation

: Does not have ozone depletion potential.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Do not dispose into the environment, in drains or in water courses.

Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination.

Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

Waste, spills or used product is dangerous waste.

Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local regulations may be more stringent than regional or national requirements and must be complied with.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.

Contaminated packaging Drain container thoroughly.

> After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture,

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

cut or weld uncleaned drums.

Send to drum recoverer or metal reclaimer.

Comply with any local recovery or waste disposal regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADN : 3082
ADR : 3082
RID : 3082
IMDG : 3082
IATA : 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Hydrocarbons, C10, aromatics)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Hydrocarbons, C10, aromatics)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Hydrocarbons, C10, aromatics)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Hydrocarbons, C10, aromatics)

IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Hydrocarbons, C10, aromatics)

14.3 Transport hazard class(es)

ADN : 9
ADR : 9
RID : 9
IMDG
IATA : 9

14.4 Packing group

ADN

Packing group : III
Classification Code : M6
Labels : 9 (N2, F)

ADR

Packing group : III

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Classification Code : M6 Hazard Identification Number : 90 Labels : 9

RID

Packing group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9

IMDG

Packing group : III Labels : 9

IATA

Packing group : III Labels : 9

14.5 Environmental hazards

ADN

Environmentally hazardous : yes

ADR

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Section 7, Handling & Storage,

for special precautions which a user needs to be aware of or

needs to comply with in connection with transport.

14.7 Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

Additional Information: This product may be transported under nitrogen blanketing.

Nitrogen is an odourless and invisible gas. Exposure to nitrogen may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined

space entry.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - List of substances subject to authorisation

(Annex XIV)

Product is not subject to Authorisa-

tion under REACH.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Product is subject to a regulation to prevent major accidents involving hazardous substances (Official Gazette 44/2014), under Seveso III (2012/18/EU).

Law on Chemicals; Ordinance on the protection of workers of exposure to dangerous chemicals at work, exposure limit values and biological limit values, in Croatian; Waste management Act; Rules on waste transport and disposal.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP); Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

The national inventory is based on the CAS number 64742-94-5.

The components of this product are reported in the following inventories:

DSL : Listed

IECSC : Listed

KECI : Listed

PICCS : Listed

TSCA : Listed

ENCS : Listed

NZIoC : Listed

TCSI : Listed

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 16: Other information

Full text of other abbreviations

HR BEI : Croatia. Biological Exposure Limits

HR OEL : Croatia. Regulations on limit values for exposure to hazardous

substances at work and on the biological limit values.

HR OEL / STEL : Short term exposure limit HR OEL / GVI : time weighted average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice : Provide adequate information, instruction and training for op-

erators

Other information : For Industry guidance and tools on REACH please visit the

CEFIC website at http://cefic.org/Industry-support.

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not consid-

ered to be PBT or vPvB.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version 8.0 Revision Date: 27.12.2024

SDS Number: 800001007476

Date of last issue: 28.03.2024

Print Date 03.01.2025

A vertical bar (|) in the left margin indicates an amendment from the previous version.

This product is classified as H304 (May be fatal if swallowed and enters airways). The risk relates to potential for aspiration. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard and included within Section 8 of the SDS. An exposure scenario is not presented.

This product is classified as R66 / EUH066 (Repeated exposure may cause skin dryness or cracking). The risk relates to the potential for repeated or prolonged dermal contact. The risk arising from contact is solely related to the physicochemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific hazard and included within Section 8 of the SDS. An exposure scenario is not presented.

Sources of key data used to compile the Safety Data Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Identified Uses according to the Use Descriptor System

Uses - Worker

Title : Use in laboratories

- Professional

Uses - Worker

Title : Use in laboratories

- Industrial

Uses - Worker

Title : Road and construction applications

- Professional

Uses - Worker

Title : Functional Fluids

- Professional

Uses - Worker

Title : Functional Fluids

- Industrial

Uses - Worker

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024 8.0 27.12.2024 800001007476 Print Date 03.01.2025

Title : Use as a fuel

- Professional

Uses - Worker

Title : Use as a fuel

- Industrial

Uses - Worker

Title : Use in Agrochemicals uses

- Professional

Uses - Worker

Title : Use as binders and release agents

- Professional

Uses - Worker

Title : Use as binders and release agents

- Industrial

Uses - Worker

Title : Metal working fluids / rolling oils

- Professional

Uses - Worker

Title : Metal working fluids / rolling oils

- Industrial

Uses - Worker

Title : Lubricants

- Professional

High Environmental Release

Uses - Worker

Title : Lubricants

- Professional

Low Environmental Release

Uses - Worker

Title : Lubricants

- Industrial

Uses - Worker

Title : Use in Oil and Gas field drilling and production operations

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: 8.0 27.12.2024

SDS Number: 800001007476

Date of last issue: 28.03.2024

Print Date 03.01.2025

- Industrial

Uses - Worker

Title : Use in Cleaning Agents

- Professional

Uses - Worker

Title : Use in Cleaning Agents

- Industrial

Uses - Worker

Title : Uses in Coatings

- Professional

Uses - Worker

Title : Uses in Coatings

- Industrial

Uses - Worker

Title : Formulation & (re)packing of substances and mixtures

- Industrial

Uses - Worker

Title : Manufacture of substance

- Industrial

Uses - Worker

Title : Distribution of substance

- Industrial

Uses - Worker

Title : Water treatment chemicals

- Industrial

Uses - Worker

Title : Water treatment chemicals

- Professional

Identified Uses according to the Use Descriptor System

Uses - Consumer

Title : Functional Fluids

- Consumer

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Uses - Consumer

Title : Use as a fuel

- Consumer

Uses - Consumer

Title : Use in Agrochemicals uses

- Consumer

Uses - Consumer

Title : Lubricants

- Consumer

High Environmental Release

Uses - Consumer

Title : Lubricants

- Consumer

Low Environmental Release

Uses - Consumer

Title : Use in Cleaning Agents

- Consumer

Uses - Consumer

Title : Uses in Coatings

- Consumer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

HR / EN

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000780	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in laboratories- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 10, PROC 15 Environmental Release Categories: ERC8a, ESVOC SpERC 8.17.v1
Scope of process	Use of small quantities within laboratory settings, including material transfers and equipment cleaning.

SECTION 2	OPERATIONAL CONDITIONS AND RIS	SK MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at ST	Р
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 1 differently).,	100% (unless stated
Frequency and Duration of		
	8 hours (unless stated differently).	
Other Operational Condition		
Assumes use at not more the	an 20°C above ambient temperature (unles	ss stated differently).
Assumes a good basic stand	lard of occupational hygiene is implemente	ed.
Contributing Scenarios	Risk Management Measures	
Laboratory activitiesPROC15	No other specific measures identified.	
CleaningPROC10	No other specific measures identified.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCE	3.	
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	l in region:	0,1
Regional use tonnage (tonne	es/year):	0,6
Fraction of Regional tonnage used locally:		5,0E-04
		3,0E-04
Maximum daily site tonnage (kg/day): 8,2E-04		8,2E-04
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year): 365		365
	influenced by risk management	1
Local freshwater dilution factor: 10		
Local marine water dilution factor: 100		
Other Operational Condition	ons affecting Environmental Exposure	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Release fraction to air from process (initial release prior to RMM):	0,5
Release fraction to wastewater from process (initial release prior to RMM):	0,5
Release fraction to soil from process (initial release prior to RMM):	0
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process release estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges air emis-
sions and releases to soil	argoo, air oimo
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide	0
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	2,1E-01
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste fo	
External treatment and disposal of waste should comply with applicable	
regulations.	local ana/or regiona
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable regulations.	local and/or regional

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise		
indicated.		

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure Contains Worker	
3000000779	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in laboratories- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 10, PROC 15 Environmental Release Categories: ERC2, ERC4
Scope of process	Use of the substance within laboratory settings, including material transfers and equipment cleaning.

OFOTION 6		
SECTION 2	OPERATIONAL CONDITIONS AND R MEASURES	ISK MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at ST	ГР
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to differently).,	100% (unless stated
Frequency and Duration of	Use	
	8 hours (unless stated differently).	
Other Operational Conditio	ns affecting Exposure	
	an 20°C above ambient temperature (unle	ess stated differently).
	ard of occupational hygiene is implement	
Contributing Scenarios	Risk Management Measures	
Laboratory activitiesPROC15	No other specific measures identified.	
CleaningPROC10	No other specific measures identified.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	in region:	0,1
Regional use tonnage (tonnes/year): 0,6		0,6
Fraction of Regional tonnage used locally:		1
Annual site tonnage (tonnes/	year):	0,6
Maximum daily site tonnage	(kg/day):	30
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year):		20
Environmental factors not influenced by risk management		
Local freshwater dilution factor: 10		
Local marine water dilution fa		100
	ns affecting Environmental Exposure	
Release fraction to air from p	rocess (initial release prior to RMM):	2,5E-02

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Release fraction to wastewater from process (initial release prior to RMM):	2,0E-02
Release fraction to soil from process (initial release prior to RMM):	1,0E-04
Technical conditions and measures at process level (source) to pro	
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by freshwater sediment.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	0
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	
Total efficiency of removal from wastewater after onsite and offsite	94,6
(domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (MSafe) based on release following	1,3E+03
total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste for	-
External treatment and disposal of waste should comply with applicable	local and/or regional
regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	local and/or regional
regulations.	

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	
indicated	

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000789	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Road and construction applications- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC 13 Environmental Release Categories: ERC8d, ERC8f, ESVOC SpERC 8.15.v1
Scope of process	Application of surface coatings and binders in road and construction activities, including paving uses, manual mastic and in the application of roofing and water-proofing membranes.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Section 2.1	Control of Worker Exposure
Product Characteristics	
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP
Concentration of the Sub-	Covers use of substance/product up to 100% (unless stated
stance in Mixture/Article	differently).,
Frequency and Duration of	Use
Covers daily exposures up to	8 hours (unless stated differently).
Other Operational Conditio	
	an 20°C above ambient temperature (unless stated differently).
	ard of occupational hygiene is implemented.
9	, , , , , , , , , , , , , , , , , , , ,
Contributing Scenarios	Risk Management Measures
Drum/batch transfersNon-	No other specific measures identified.
dedicated facilityPROC8a	·
Drum/batch transfersDedi-	No other specific measures identified.
cated facilityPROC8b	·
Drum/batch transfersDedi-	Ensure operation is undertaken outdoors.
cated facilityOperation is	Avoid carrying out activities involving exposure for more than
carried out at elevated tem-	4 hours
perature (> 20°C above	
ambient tempera-	
ture).PROC8b	
ManualRolling, Brush-	No other specific measures identified.
ingPROC10	
Spraying/ fogging by ma-	Ensure operation is undertaken outdoors.
chine applicationOperation	Limit the substance content in the mixture to 50 %.
is carried out at elevated	Wear a respirator conforming to EN140 with Type A filter or
temperature (> 20°C above	better.
ambient tempera-	Automate activity where possible.
ture).PROC11	
Spraying/ fogging by ma-	Ensure operation is undertaken outdoors.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Equipment cleaning and maintenancePROC8a Drum and small package fillingPROC9 Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: 0,1 Regional use tonnage (tonnes/year): 12 Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 1,7E-02 Frequency and Duration of Use Continuous release. Emission Days (days/year): 365 Environmental factors not influenced by risk management Local freshwater dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0,95 Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide on the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	chine applicationPROC11	Wear a respirator conforming to EN140 v better.	vith Type A filter or
maintenancePROC8a Drum and small package	Dipping, immersion and pouringPROC13	No other specific measures identified.	
Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): 12 Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 6,1E-03 Maximum daily site tonnage (kg/day): 1,7E-02 Frequency and Duration of Use Continuous release. Emission Days (days/year): 365 Environmental factors not influenced by risk management Local freshwater dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater and offsite (domestic treatment plant) RMMs (%)	Equipment cleaning and maintenancePROC8a	No other specific measures identified.	
Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region:	Drum and small package fillingPROC9	No other specific measures identified.	
Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use Continuous release. Emission Days (days/year): Soft Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water dilution factor: Cother Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): A,0E-02 Technical conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational meas	Section 2.2	Control of Environmental Exposure	
Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Frequency and Duration of Use Continuous release. Emission Days (days/year): Emission Days (days/year): Semission Days (days/year): Cotal marine water dilution factor: Local freshwater dilution factor: Local marine water dilution factor: Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Substance is complex UVCB	•	
Amounts Used Fraction of EU tonnage used in region: 0,1 Regional use tonnage (tonnes/year): 12 Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 6,1E-03 Maximum daily site tonnage (kg/day): 1,7E-02 Frequency and Duration of Use Continuous release. Emission Days (days/year): 365 Environmental factors not influenced by risk management Local freshwater dilution factor: 10 Local marine water dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0,95 Release fraction to soil from process (initial release prior to RMM): 1,0E-02 RMM): 1,0E-02 RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): 12 Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): 6,1E-03 Maximum daily site tonnage (kg/day): 7,7E-02 Frequency and Duration of Use Continuous release. Emission Days (days/year): 365 Environmental factors not influenced by risk management Local freshwater dilution factor: 10 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use Continuous release. Emission Days (days/year): Emission Days (days/year): Semission Days (days/year): Local freshwater dilution factor: Local freshwater dilution factor: Local marine water dilution factor: Local marine water dilution factor: Cother Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to swifter process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		in region:	0.1
Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Annual site tonnage (tonnes/year): Frequency and Duration of Use Continuous release. Emission Days (days/year): Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water dilution factor: Local marine water dilution factor: Local marine water dilution factor: Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Trequency and Duration of Use Continuous release. Emission Days (days/year): Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Maximum daily site tonnage (kg/day): Frequency and Duration of Use Continuous release. Emission Days (days/year): Semission Days (days/year): Cocal freshwater dilution factor: Local freshwater dilution factor: Local marine water from process (initial release prior to RMM): Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater after onsite and offsite (domestic tre			1
Frequency and Duration of Use Continuous release. Emission Days (days/year): Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water will dilution factor: Local marine watewater from process (initial release prior to RMM): Local marine watewater from process (initial release prior to RMM): Local marine process (initial release prior to RMM): Local marine marine process (initial release prior to RMM): Local marine massures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Condicions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Rose release prior to RMM): Local marine massures to prevent release prior to RMM): Local marine massures release from site wastewater treatment required. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage Local marine plant plant Local marine plant plant Local marine plant plant Local marine pla			
Continuous release. Emission Days (days/year): 365 Environmental factors not influenced by risk management Local freshwater dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0,95 Release fraction to wastewater from process (initial release prior to RMM): 4,0E-02 Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) 0 Treat onsite wastewater (prior to receiving water discharge) to provide 0 the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment plant Estimated substance removal from wastewater after onsite and offsite 94,6 (domestic treatment plant) RMMs (%)			, -
Emission Days (days/year): Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water dilution factor: Cother Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Environmental factors not influenced by risk management Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			365
Local freshwater dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0,95 Release fraction to wastewater from process (initial release prior to RMM): 1,0E-02 RMM): 1,0E-02 Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		nfluenced by risk management	
Local marine water dilution factor: 100 Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 0,95 Release fraction to wastewater from process (initial release prior to RMM): 1,0E-02 Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) 0 Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment p		·	10
Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to 1,0E-02 RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Release fraction to air from process (initial release prior to RMM): Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			1
Release fraction to wastewater from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): Release fraction to soil from process (initial release prior to RMM): 4,0E-02 Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process release estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			0.95
Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process re- lease estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Technical conditions and measures at process level (source) to prevent release Common practices vary across sites thus conservative process re- lease estimates used. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Release fraction to soil from	process (initial release prior to RMM):	4,0E-02
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Technical conditions and measures at process level (source) to prevent release		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Common practices vary across sites thus conservative process re-		
Risk from environmental exposure is driven by freshwater. No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		s and measures to reduce or limit discha	arges, air emis-
No wastewater treatment required. Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)		osure is driven by freshwater.	
Treat air emission to provide a typical removal efficiency of (%) Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			0
the required removal efficiency of >= (%) If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Treat onsite wastewater (prio	r to receiving water discharge) to provide	0
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	**	0 0, .	
Wastewater treatment required. Organisational measures to prevent/limit release from site Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			0
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Organisational measures to	prevent/limit release from site	
Conditions and Measures related to municipal sewage treatment plant Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)			<u> </u>
Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Sludge should be incinerated	, contained or reclaimed.	
Estimated substance removal from wastewater via domestic sewage treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	Conditions and Measures r	elated to municipal sewage treatment p	lant
treatment (%) Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%) 94,6			
(domestic treatment plant) RMMs (%)	treatment (%)	_	
			4,6

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	4,3E+00

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

	SECTION 3	EXPOSURE ESTIMATION
	Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise		peen used to estimate workplace exposures unless otherwise

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occinatio - Worker	
30000000778	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Functional Fluids- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 8a, PROC 9, PROC 20 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.13b.v1
Scope of process	Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in professional equipment including maintenance and related material transfers.

SECTION 2	OPERATIONAL CONDITIONS AND RIS MEASURES	K MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics	Product Characteristics	
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STF	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 10 differently).,	00% (unless stated
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios Risk Management Measures

	n management measures
Drum/batch transfersPROC8a	No other specific measures identified.
Transfer from/pouring from containersPROC9	No other specific measures identified.
Filling/ preparation of equipment from drums or containers.PROC9	No other specific measures identified.
General exposures (closed systems)PROC1PROC2PROC3	No other specific measures identified.
Operation of equipment containing engine oils and similar.(closed systems)PROC20	No other specific measures identified.
Operation of equipment containing engine oils and similar. (closed systems) Operation is carried out at elevated temperature (> 20°C above ambient temperature). PROC20	No other specific measures identified.
Remanufacture of reject arti-	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

clesPROC9		
Equipment maintenance- PROC8a	No other specific measures identified	d.
Storage.PROC1PROC2	Store substance within a closed syst	em.
Section 2.2 Co	ntrol of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in re	egion:	0,1
Regional use tonnage (tonnes/yea		3,0
Fraction of Regional tonnage use		5,0E-04
Annual site tonnage (tonnes/year)		1,5E-03
Maximum daily site tonnage (kg/d		4,1E-03
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year):		365
Environmental factors not influ	enced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution factor		100
Other Operational Conditions a	ffecting Environmental Exposure	
Release fraction to air from proce	ss (initial release prior to RMM):	5,0E-02
Release fraction to wastewater fro RMM):	om process (initial release prior to	2,5E-02
Release fraction to soil from proce	ess (initial release prior to RMM):	2,5E-02
	ures at process level (source) to pr	event release
Common practices vary across si lease estimates used.		
Technical onsite conditions and sions and releases to soil	d measures to reduce or limit disch	arges, air emis-
Risk from environmental exposure	e is driven by freshwater	
No wastewater treatment required		
Treat air emission to provide a typ		0
	receiving water discharge) to provide	0
the required removal efficiency of		
If discharging to domestic sewage treatment plant, no secondary		0
wastewater treatment required.	vent/limit valence from aite	
Organisational measures to pre		
Do not apply industrial sludge to r Sludge should be incinerated, cor		
Conditions and Measures relate	ed to municipal sewage treatment p	lant
	m wastewater via domestic sewage	94,6
Total efficiency of removal from w		94,6
(domestic treatment plant) RMMs (%)		1 1
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		1,1
Assumed domestic sewage treatment plant flow (m3/d)		2,0E+03
Conditions and Measures related to external treatment of waste fo		
	f waste should comply with applicable	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
3201013	LAI OSONE ESTIMATION

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000777	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Functional Fluids- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 9 Environmental Release Categories: ERC7, ESVOC SpERC 7.13a.v1
Scope of process	Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material transfers.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Section 2.1	Control of Worker Exposure
Product Characteristics	Control of the transfer and the transfer
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,
Frequency and Duration of	Use
Covers daily exposures up to	8 hours (unless stated differently).
Other Operational Conditio	
	in 20°C above ambient temperature (unless stated differently).
Assumes a good basic stands	ard of occupational hygiene is implemented.
Contributing Scenarios	Risk Management Measures
Bulk transfers(closed systems)PROC1PROC2	No other specific measures identified.
Drum/batch transfersDedicated facilityPROC8b	No other specific measures identified.
Filling of arti- cles/equipment(closed sys- tems)PROC9	No other specific measures identified.
Filling/ preparation of equipment from drums or containers.Non-dedicated facilityPROC8a	No other specific measures identified.
General exposures (closed systems)PROC2	No other specific measures identified.
General exposures (open systems)PROC4	No other specific measures identified.
Remanufacture of reject articlesPROC9	No other specific measures identified.
Equipment maintenance- PROC8a	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Storage.PROC1PROC2	Store substance within a closed system.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.	Ochio of Environmental Expedito	
Predominantly hydrophobic.		
Amounts Used		
	o region.	0.4
Fraction of EU tonnage used in		0,1
Regional use tonnage (tonnes		3,0
Fraction of Regional tonnage		1
Annual site tonnage (tonnes/y		3,0
Maximum daily site tonnage (k		150
Frequency and Duration of L	Jse	
Continuous release.		
Emission Days (days/year):		20
Environmental factors not in	fluenced by risk management	
Local freshwater dilution facto	r:	10
Local marine water dilution fac	ctor:	100
Other Operational Condition	s affecting Environmental Exposure	•
	ocess (initial release prior to RMM):	5,0E-03
	r from process (initial release prior to	3,0E-05
RMM):	i irom process (irinai release prior te	0,02 00
	rocess (initial release prior to RMM):	1,0E-03
Technical conditions and me	easures at process level (source) to pr	
	s sites thus conservative process re-	
lease estimates used.	3 Sites thus conservative process re	
	and measures to reduce or limit disch	arges, air emis-
Risk from environmental expos	sure is driven by freshwater.	
	ved substance to or recover from onsite	
wastewater.		
No wastewater treatment requ	ired.	
	typical removal efficiency of (%)	0
	to receiving water discharge) to provide	0
the required removal efficiency		
	age treatment plant, no secondary	0
wastewater treatment required		
	prevent/limit release from site	
Do not apply industrial sludge		
Sludge should be incinerated,		
Sidage silodid be ilicilierated,	contained of reclaimed.	
Conditions and Measures re	lated to municipal sewage treatment p	lant
	from wastewater via domestic sewage	
treatment (%)		94,6
Total efficiency of removal from (domestic treatment plant) RM	m wastewater after onsite and offsite IMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following		3,8E+04
total wastewater treatment removal (kg/d)		3,02.01
Assumed domestic sewage treatment plant flow (m3/d) 2,0E+03		2.0F±03
Conditions and Measures related to external treatment of waste for disposal		
	al of waste should comply with applicable	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3 EXPOSURE ESTIMATION

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occurano - Worker	
30000000776	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as a fuel- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 8a, PROC 8b, PROC 16 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.12b.v1
Scope of process	Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures
Bulk transfersDedicated facili- tyPROC8b	No other specific measures identified.
Drum/batch transfersDedicate facilityPROC8b	No other specific measures identified.
Refueling.Dedicated facili- tyPROC8b	No other specific measures identified.
General exposures (closed systems)PROC1PROC2PROC	No other specific measures identified.
Use as a fuel(closed systems)PROC16	No other specific measures identified.
Equipment cleaning and maintenancePROC8a	No other specific measures identified.
Storage.PROC1	Store substance within a closed system.

Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	in region:	0,1

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Regional use tonnage (tonnes/year):	0,12
Fraction of Regional tonnage used locally:	5,0E-04
Annual site tonnage (tonnes/year):	6,2E-05
Maximum daily site tonnage (kg/day):	1,7E-04
Frequency and Duration of Use	,
Continuous release.	
Emission Days (days/year):	365
Environmental factors not influenced by risk management	
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	1,0E-04
Release fraction to wastewater from process (initial release prior to RMM):	1,0E-05
Release fraction to soil from process (initial release prior to RMM):	1,0E-05
Technical conditions and measures at process level (source) to pro	
Common practices vary across sites thus conservative process re-	
ease estimates used.	
Technical onsite conditions and measures to reduce or limit discha sions and releases to soil	arges, air emis-
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide	0
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	4,4E-02
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste for	
Combustion emissions limited by required exhaust emission controls.	alopoodi
Waste combustion emissions considered in regional exposure assessm	ent.
Conditions and measures related to external recovery of waste	an anata d
This substance is consumed during use and no waste of substance is g	enerated.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	
indicated	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occitatio - Worker	
30000000775	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as a fuel- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 8a, PROC 8b, PROC 16 Environmental Release Categories: ERC7, ESVOC SpERC 7.12a.v1
Scope of process	Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of	Use	
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures
Bulk transfersDedicated facili- tyPROC8b	No other specific measures identified.
Drum/batch transfersDedicate facilityPROC8b	No other specific measures identified.
General exposures (closed systems)PROC1PROC2PRO	No other specific measures identified.
Use as a fuel(closed systems)PROC16	No other specific measures identified.
Equipment cleaning and maintenancePROC8a	No other specific measures identified.
Storage.PROC1PROC2	Store substance within a closed system.

Section 2.2 Control of Environmental Exposure		
Substance is complex UVCB.	Substance is complex UVCB.	
Predominantly hydrophobic.	Predominantly hydrophobic.	
Amounts Used		
Fraction of EU tonnage used in region: 0,1		0,1
Regional use tonnage (tonnes/year): 2,5E+03		2,5E+03
Fraction of Regional tonnage used locally: 1		1

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	1
Annual site tonnage (tonnes/year):	2,5E+03
Maximum daily site tonnage (kg/day):	2,5E+04
Frequency and Duration of Use	1
Continuous release.	
Emission Days (days/year):	100
Environmental factors not influenced by risk management	1
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	5,0E-03
Release fraction to wastewater from process (initial release prior to RMM):	1,0E-05
Release fraction to soil from process (initial release prior to RMM):	0
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by freshwater sediment.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	95
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	0
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	1
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
chage chedia se incinerated, contained of reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	2,7E+06
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste fo	
Combustion emissions limited by required exhaust emission controls.	
Waste combustion emissions considered in regional exposure assessm	ent.
Conditions and measures related to external recovery of waste	
This substance is consumed during use and no waste of substance is g	enerated.
y	•

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has be indicated.	peen used to estimate workplace exposures unless otherwise

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000774	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Agrochemicals uses- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 4, PROC 8a, PROC 8b, PROC 11, PROC 13 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.11a.v1
Scope of process	Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging; including equipment clean-downs and disposal.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Sub-	Covers use of substance/product up to 100% (unless stated	
stance in Mixture/Article	differently).,	
Frequency and Duration of		
Covers daily exposures up to	8 hours (unless stated differently).	
Other Operational Conditio		
	in 20°C above ambient temperature (unless stated differently).	
Assumes a good basic stand	ard of occupational hygiene is implemented.	
Contributing Scenarios	Risk Management Measures	
Transfer from/pouring from containersPROC8b	No other specific measures identified.	
Mixing in contain- ers.PROC4	No other specific measures identified.	
Spraying/ fogging by manual applicationPROC11	Wear a respirator conforming to EN140 with Type A filter or better.	
Spraying/ fogging by machine applicationPROC11	Apply within a vented cab supplied with filtered air under positive pressure and with a protection factor of >20.	
Ad hoc manual application via trigger sprays, dipping, etc.PROC13	No other specific measures identified.	
Equipment cleaning and maintenancePROC8a	No other specific measures identified.	
Storage.PROC1PROC2	Store substance within a closed system.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Predominantly hydrophobic.	
Amounts Used	
Fraction of EU tonnage used in region:	0,1
Regional use tonnage (tonnes/year):	870
	2,0E-03
Fraction of Regional tonnage used locally:	
Annual site tonnage (tonnes/year):	1,7
Maximum daily site tonnage (kg/day):	4,8
Frequency and Duration of Use	ı
Continuous release.	
Emission Days (days/year):	365
Environmental factors not influenced by risk management	
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	0,9
Release fraction to wastewater from process (initial release prior to	1,0E-02
RMM):	
Release fraction to soil from process (initial release prior to RMM):	9,0E-02
Technical conditions and measures at process level (source) to pro	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit discharge	arges, air emis-
sions and releases to soil	•
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	
Treat onsite wastewater (prior to receiving water discharge) to provide	0
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	l .
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
orange on our and monitoring grant and or recommend.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	,•
Total efficiency of removal from wastewater after onsite and offsite	94,6
(domestic treatment plant) RMMs (%)	0 1,0
Maximum allowable site tonnage (MSafe) based on release following	920
total wastewater treatment removal (kg/d)	020
Assumed domestic sewage treatment plant flow (m3/d)	8,8E+02
Conditions and Measures related to external treatment of waste for	
External treatment and disposal of waste should comply with applicable	
regulations.	iodai ana, or regional
rogulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	local and/or regional
regulations.	iocai anu/oi iegionai
10gaiationo.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000773	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as binders and release agents- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 6, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 14 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.10b.v1
Scope of process	Covers the use as binders and release agents including material transfers, mixing, application by spraying, brushing, and handling of waste.

SECTION 2	OPERATIONAL CONDITIONS AND RIS MEASURES	K MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	,
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 10 differently).,	00% (unless stated
Frequency and Duration of	Use	
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios Risk Management Measures Bulk transfersUse in contained No other specific measures identified. systemsPROC1PROC2PROC3 No other specific measures identified. Drum/batch transfersPROC8b Mixing operations (closed sys-No other specific measures identified. tems)PROC3 Mixing operations (open sys-No other specific measures identified. tems)PROC4 Mold formingPROC14 No other specific measures identified. Casting operations(open sys-Provide extraction ventilation at points where emissions octems)Operation is carried out at cur. elevated temperature (> 20°C above ambient tempera-Wear a respirator conforming to EN140 with Type A filter or ture).PROC6 better. SprayingMachinePROC1 Minimise exposure by extracted full enclosure for the operation or equipment.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Counting Manual DDOC44	Corresponding a secretary backter as the construction of the const	to di analagone	
SprayingManualPROC11	Carry out in a vented booth or extract	tea enclosure.	
	, or:	40 with Type A filter or	
	Wear a respirator conforming to EN1- better.	40 with Type A filter of	
	Detter.		
ManualRolling, Brush-	No other specific measures identified		
ingPROC10		•	
Storage.PROC1PROC2	Store substance within a closed syste	em.	
Clore debotation within a diodea dystern.			
Section 2.2 C	ontrol of Environmental Exposure		
Substance is complex UVCB.	•		
Predominantly hydrophobic.			
Amounts Used			
Fraction of EU tonnage used in	region:	0,1	
Regional use tonnage (tonnes/ye		100	
Fraction of Regional tonnage use		5,0E-04	
Annual site tonnage (tonnes/year		5,0E-02	
Maximum daily site tonnage (kg/		0,14	
Frequency and Duration of Us		-,	
Continuous release.	<u> </u>		
Emission Days (days/year):		365	
Environmental factors not infl	uenced by risk management		
Local freshwater dilution factor:	action by the transfer of the	10	
Local marine water dilution factor	r:	100	
	affecting Environmental Exposure	1.00	
	ess (initial release prior to RMM):	0,95	
	rom process (initial release prior to	2,5E-02	
RMM):		_,-,	
Release fraction to soil from process (initial release prior to RMM):		2,5E-02	
	sures at process level (source) to pr	event release	
	sites thus conservative process re-		
lease estimates used.			
Technical onsite conditions ar	nd measures to reduce or limit disch	arges, air emis-	
sions and releases to soil			
Risk from environmental exposu	re is driven by freshwater.		
No wastewater treatment required.			
Treat air emission to provide a typical removal efficiency of (%)			
Treat onsite wastewater (prior to receiving water discharge) to provide		0	
the required removal efficiency of >= (%)			
If discharging to domestic sewage treatment plant, no secondary		0	
wastewater treatment required.			
Organisational measures to pr	revent/limit release from site		
Do not apply industrial sludge to	natural soils.		
Sludge should be incinerated, co	ontained or reclaimed.		
Conditions and Measures rela	ted to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage		94,6	
treatment (%)			
	wastewater after onsite and offsite	94,6	
(domestic treatment plant) RMMs (%)			

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Maximum allowable site tonnage (MSafe) based on release following	35
total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has be indicated.	peen used to estimate workplace exposures unless otherwise	

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occitatio - Worker	
30000000772	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as binders and release agents- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 6, PROC 7, PROC 8b, PROC 10, PROC 13, PROC 14 Environmental Release Categories: ERC4, ESVOC SpERC 4.10a.v1
Scope of process	Covers the use as binders and release agents including material transfers, mixing, application (including spraying and brushing), and handling of waste.

SECTION 2	OPERATIONAL CONDITIONS AND RIS	K MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 10 differently).,	00% (unless stated
Frequency and Duration of	Use	
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Condition	ons affecting Exposure	
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures
Bulk transfersUse in contained systemsPROC1PROC2PROC	No other specific measures identified.
Drum/batch transfersPROC8b	No other specific measures identified.
Mixing operations (closed systems)PROC3	No other specific measures identified.
Mixing operations (open systems)PROC4	No other specific measures identified.
Mold formingPROC14	No other specific measures identified.
Casting operations(open systems)Operation is carried out a elevated temperature (> 20°C above ambient temperature).Aerosol generation due to elevated process temperature-PROC6	
SprayingMachinePROC7	Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	1	
SprayingManualPROC7	Carry out in a vented booth or extract, or: Provide a good standard of controlled changes per hour). Avoid carrying out activities involving 4 hours	d ventilation (10 to 15 air
ManualRolling, Brush-ingPROC10	No other specific measures identified	
Dipping, immersion and pouringPROC13	No other specific measures identified	
Storage.PROC1PROC2	Store substance within a closed syste	em.
Section 2.2 C	ontrol of Environmental Exposure	
Substance is complex UVCB.	•	
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in	region:	0,1
Regional use tonnage (tonnes/y		100
Fraction of Regional tonnage us		1
Annual site tonnage (tonnes/yea		100
Maximum daily site tonnage (kg/		5,0E+03
Frequency and Duration of Us		
Continuous release.		
Emission Days (days/year):		20
Environmental factors not infl	uenced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
	affecting Environmental Exposure	
Release fraction to air from proc	ess (initial release prior to RMM):	1,0
Release fraction to wastewater from process (initial release prior to RMM):		3,0E-06
Release fraction to soil from process (initial release prior to RMM):		0
	sures at process level (source) to pr	event release
lease estimates used.	sites thus conservative process re-	
Technical onsite conditions an sions and releases to soil	nd measures to reduce or limit disch	arges, air emis-
Risk from environmental exposu	re is driven by freshwater.	
Prevent discharge of undissolved substance to or recover from onsite wastewater.		
No wastewater treatment required.		
Treat air emission to provide a typical removal efficiency of (%)		80
Treat onsite wastewater (prior to receiving water discharge) to provide		0
the required removal efficiency of		
	ge treatment plant, no secondary	0
wastewater treatment required.		
Organisational measures to p		
Do not apply industrial sludge to Sludge should be incinerated, co		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

SDS Number: Date of last issue: 28.03.2024 Version Revision Date:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Conditions and Measures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	1,2E+06	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste fo	r disposal	

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3 EXPOSURE ESTIMATION		
	Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise		

indicated.

Section 3.2 -Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO
Section 4.1 - Health	

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000771	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Metal working fluids / rolling oils- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 5, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC 13, PROC 17 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.7c.v1
Scope of process	Covers the use in formulated MWFs including transfer operations, open and contained cutting/machining activities, automated and manual application of corrosion protections, draining and working on contaminated/ reject articles, and disposal of waste oils.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration o	f Use	
Covers daily exposures up t	o 8 hours (unless stated differently).	
Other Operational Condition	ons affecting Exposure	
Assumes use at not more than 20°C above ambient temperature (unless stated differently).		

Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.

γ, σ,		
Contributing Scenarios	Risk Man	nagement Measures
General exposures (closed s tems)PROC1PROC2PROC3		No other specific measures identified.
Bulk transfersPROC8b		No other specific measures identified.
Filling/ preparation of equipm drums or containers.Dedicate tyPROC5PROC8aPROC8bF	ed facili-	No other specific measures identified.
Process samplingPROC8b		No other specific measures identified.
Metal machining operationsF	ROC17	Provide a good standard of general or controlled ventilation (5 to 15 air changes per hour).
ManualRolling, BrushingPRC	C10	No other specific measures identified.
SprayingPROC11		Avoid carrying out activities involving exposure for more than 1 hour.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Treatment by dipping and pouringPROC13 Equipment cleaning and maintenance-Dedicated facilityPROC8b Storage.PROC1PROC2 Storage.PROC1PROC2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Prequency and Duration of Use Control of Use Control of Use Control of ENVIRON Specific measures identified. No other specific measures identified. No other specific measures identified. No other specific measures identified. Storage.PROC1PROC2 Store substance within a closed system. Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Continuous release.		
Equipment cleaning and maintenanceNon-dedicated facilityPROC8a Equipment cleaning and maintenanceDedicated facilityPROC8b Storage.PROC1PROC2 Store substance within a closed system. Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Equipment cleaning and maintenanceNon-dedicated facilityPROC8a Equipment cleaning and maintenanceDedicated facilityPROC8b Storage.PROC1PROC2 Store substance within a closed system. Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Equipment cleaning and maintenance—Dedicated facilityPROC8b Storage.PROC1PROC2 Store substance within a closed system. Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Storage.PROC1PROC2 Store substance within a closed system. Section 2.2 Control of Environmental Exposure Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Substance is complex UVCB. Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: 0,1 Regional use tonnage (tonnes/year): 50 Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 2,5E-02 Maximum daily site tonnage (kg/day): 6,8E-02 Frequency and Duration of Use		
Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Predominantly hydrophobic. Amounts Used Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Amounts UsedFraction of EU tonnage used in region:0,1Regional use tonnage (tonnes/year):50Fraction of Regional tonnage used locally:5,0E-04Annual site tonnage (tonnes/year):2,5E-02Maximum daily site tonnage (kg/day):6,8E-02Frequency and Duration of Use		
Fraction of EU tonnage used in region: Regional use tonnage (tonnes/year): Fraction of Regional tonnage used locally: Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): Frequency and Duration of Use		
Regional use tonnage (tonnes/year): 50 Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 2,5E-02 Maximum daily site tonnage (kg/day): 6,8E-02 Frequency and Duration of Use		
Fraction of Regional tonnage used locally: 5,0E-04 Annual site tonnage (tonnes/year): 2,5E-02 Maximum daily site tonnage (kg/day): 6,8E-02 Frequency and Duration of Use		
Annual site tonnage (tonnes/year): Maximum daily site tonnage (kg/day): 6,8E-02 Frequency and Duration of Use		
Maximum daily site tonnage (kg/day): 6,8E-02 Frequency and Duration of Use		
Frequency and Duration of Use		
Emission Days (days/year): 365		
Environmental factors not influenced by risk management		
Local freshwater dilution factor: 10		
Local marine water dilution factor: 100		
Other Operational Conditions affecting Environmental Exposure		
Release fraction to air from process (initial release prior to RMM): 0,15		
Release fraction to wastewater from process (initial release prior to RMM): 5,0E-02		
Release fraction to soil from process (initial release prior to RMM): 5,0E-02		
Technical conditions and measures at process level (source) to prevent release		
Common practices vary across sites thus conservative process re-		
lease estimates used.		
Technical onsite conditions and measures to reduce or limit discharges, air emis-		
Sions and releases to soil		
Risk from environmental exposure is driven by freshwater.		
No wastewater treatment required.		
Treat air emission to provide a typical removal efficiency of (%)		
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)		
If discharging to domestic sewage treatment plant, no secondary 0		
wastewater treatment required.		
Organisational measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils.		
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic sewage treatment (%)		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6	
Maximum allowable site tonnage (MSafe) based on release following	17	
total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Massures related to external treatment of waste for disposal		

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	
indicated.	

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO
0 4 4 11 14	

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000770	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Metal working fluids / rolling oils- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 7, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 13, PROC 17 Environmental Release Categories: ERC4, ESVOC SpERC 4.7a.v1
Scope of process	Covers the use in formulated MWFs/rolling oils including transfer operations, rolling and annealing activities, cutting/machining activities, automated and manual application of corrosion protections (including brushing, dipping and spraying), equipment maintenance, draining and disposal of waste oils.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT	
	MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently).		

Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.

Contributing Scenarios	Risk Management Measures
General exposures (closed sy tems)PROC1PROC2PROC3	/s- No other specific measures identified.
General exposures (open systems)PROC4	- No other specific measures identified.
Bulk transfersPROC8b	No other specific measures identified.
Filling/ preparation of equipm from drums or containers.PROC5PROC8bPROC9	ent No other specific measures identified.
Process samplingPROC8b	No other specific measures identified.
Metal machining operationsPROC17	No other specific measures identified.
Treatment by dipping and pouingPROC13	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

SprayingPROC7		Minimise exposure by partial end equipment and provide extract ve	
ManualRolling, BrushingPROC10		No other specific measures iden	tified.
Automated metal roll- ing/formingUse in contained sys- temsOperation is carried out at elevated temperature (> 20°C above ambient tempera- ture).PROC2		No other specific measures iden	tified.
Semi-automated metal roll- ing/formingOperation is carried out at elevated temperature (> 20°C above ambient tempera- ture).PROC17		Minimise exposure by partial end equipment and provide extract versions	
Equipment cleaning and mai nancePROC8aPROC8b	nte-	No other specific measures iden	
Storage.PROC1PROC2		Store substance within a closed	system.
Section 2.2	Contr	ol of Environmental Exposure	
Substance is complex UVCB		•	
Predominantly hydrophobic.			
Amounts Used			
Fraction of EU tonnage used	in regio	on:	0,1
Regional use tonnage (tonne			100
Fraction of Regional tonnage			1
Annual site tonnage (tonnes/			100
Maximum daily site tonnage (kg/day)		•	5,0E+03
Frequency and Duration of		•	0,02100
Continuous release.	-		
Emission Days (days/year):			20
Environmental factors not	influenc	ced by risk management	120
Local freshwater dilution fact		boa by non management	10
Local marine water dilution factor: Local marine water dilution factor:			100
		cting Environmental Exposure	1100
Other Operational Conditions affecting Environmental Exposure Release fraction to air from process (initial release prior to RMM): 2,0E-02			2,0E-02
			3,0E-05
Release fraction to soil from process (initial release prior to RMM): 0			
		es at process level (source) to pr	-
		thus conservative process re-	
lease estimates used.	00 0.100	and deriver valive process re	
	s and m	neasures to reduce or limit disch	narges, air emis-
	osura is	driven by freshwater sediment	
	Risk from environmental exposure is driven by freshwater sediment. Prevent discharge of undissolved substance to or recover from onsite		
wastewater.	nveu sul	DSIGNOS TO OF TECOVER HOTH OHSILE	
No wastewater treatment rec	uired		
No wastewater treatment record Treat air emission to provide		al removal efficiency of (%)	70

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

the required removal efficiency of >= (%)		
If discharging to domestic sewage treatment plant, no secondary	0	
wastewater treatment required.		
Organisational measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils.		
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage	94,6	
treatment (%)		
Total efficiency of removal from wastewater after onsite and offsite	94,6	
(domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (MSafe) based on release following	8,9E+05	
total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste for	r disposal	
External treatment and disposal of waste should comply with applicable	local and/or regional	
regulations.		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable	local and/or regional	
regulations.		

Section 3.1 - Health

SECTION 3

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

EXPOSURE ESTIMATION

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet

(http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occitatio - W	OTRO!
30000000769	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Lubricants- ProfessionalHigh Environmental Release
Use Descriptor	Sector of Use: SU22
-	Process Categories: PROC 1, PROC 2, PROC 3, PROC 4,
	PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC
	13, PROC 17, PROC 18, PROC 20
	Environmental Release Categories: ERC8a, ERC8d,
	ESVOC SpERC 8.6c.v1
	23 VOC OPENO 0.00.V1
Scope of process	Covers the use of formulated lubricants in closed and open
Scope of process	· ·
	systems including transfer operations, operation of engines
	and similar articles, reworking on reject articles, equipment
	maintenance and disposal of waste oil.
1	

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk	Management Measures	
General exposures (closed sy tems)PROC1PROC2PROC3	/S-	No other specific measures identified.	
Operation of equipment conta engine oils and similar.PROC		No other specific measures identified.	
General exposures (open sys tems)PROC4	-	No other specific measures identified.	
Bulk transfersDedicated facili- tyPROC8b	-	No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Dedicated facilityPROC8b		No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Non dedicated facilityPROC8a		No other specific measures identified.	
Operation and lubrication of henergy open equipmentIndoorPROC17PROC18	igh	Restrict area of openings to equipment.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Operation and lubrication of high	Wear a respirator conforming to	EN140 with Type A filter or
energy open equipmentOut-	better.	
doorPROC17		
Maintenance (of larger plant items)	No other specific measures ident	tified.
and machine set upPROC8b		
Maintenance (of larger plant items)	Drain down system prior to equip	ment opening or mainte-
and machine set upOperation is	nance.	
carried out at elevated tempera-		
ture (> 20°C above ambient tem-		
perature).Dedicated facili- tyPROC8b		
Maintenance of small itemsOpera-	Drain down system prior to equip	ment opening or mainte-
tion is carried out at elevated tem-	nance.	ment opening of mainte-
perature (> 20°C above ambient	nance.	
temperature).Non-dedicated facili-		
tyPROC8a		
Engine lubricant servicePROC9	No other specific measures ident	tified.
	·	
ManualRolling, BrushingPROC10	No other specific measures ident	tified.
Caroving DDOC11	Avoid corruing out activities invol	ving expecting for more
SprayingPROC11	Avoid carrying out activities involving exposure for more than 1 hour.	
	, or:	
	Wear a respirator conforming to	FN140 with Type
	A/P2 filter or better.	Livi io waii iypo
	7.7	
Treatment by dipping and pour-	No other specific measures ident	tified.
ingPROC13		
Storage.PROC1PROC2	Store substance within a closed	system.
Section 2.2 Cont	rol of Environmental Exposure	
Substance is complex UVCB.	Environmental Exposure	
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in regi	on.	0,1
Regional use tonnage (tonnes/year)		50
Fraction of Regional tonnage used		5,0E-04
Annual site tonnage (tonnes/year):		2,5E-02
Maximum daily site tonnage (kg/day	/):	6,8E-02
Frequency and Duration of Use	,	,
Continuous release.		
		22-
		365
Emission Days (days/year): Environmental factors not influer	nced by risk management	365
Emission Days (days/year):	nced by risk management	10
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor: Local marine water dilution factor:		_
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor:		10
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions afformation of the procession of	ecting Environmental Exposure (initial release prior to RMM):	10 100 0,15
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions afform Release fraction to air from process Release fraction to wastewater from	ecting Environmental Exposure (initial release prior to RMM):	10 100
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions afform Release fraction to air from process Release fraction to wastewater from RMM):	ecting Environmental Exposure (initial release prior to RMM): a process (initial release prior to	10 100 0,15 5,0E-02
Emission Days (days/year): Environmental factors not influer Local freshwater dilution factor: Local marine water dilution factor: Other Operational Conditions afform Release fraction to air from process Release fraction to wastewater from	ecting Environmental Exposure (initial release prior to RMM): n process (initial release prior to s (initial release prior to RMM):	10 100 0,15 5,0E-02 5,0E-02

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Γ · · · · · · · · · · · · · · · · · ·	1
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit discharge and releases to sail	arges, air emis-
sions and releases to soil	1
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	0
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	17
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste for	r disposal
External treatment and disposal of waste should comply with applicable regulations.	local and/or regional
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or regional regulations.	

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise		
indicated.		

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO	
Section 4.1 - Health		
Measures/Operational Condi Where other Risk Manageme	expected to exceed the DN(M)EL when the Risk Management tions outlined in Section 2 are implemented. ent Measures/Operational Conditions are adopted, then users managed to at least equivalent levels.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000768	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Lubricants- ProfessionalLow Environmental Release
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC 13, PROC 17, PROC 18, PROC 20 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.6b.v1
Scope of process	Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of engines and similar articles, reworking on reject articles, equipment maintenance and disposal of waste oil.

SECTION 2	OPERATIONAL CONDITIONS AND RISI MEASURES	K MANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 10 differently).,	00% (unless stated
Frequency and Duration of	f Use	
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk	Management Measures	
General exposures (closed sy tems)PROC1PROC2PROC3	'S-	No other specific measures identified.	
Operation of equipment conta engine oils and similar.PROC		No other specific measures identified.	
General exposures (open systems)PROC4	-	No other specific measures identified.	
Bulk transfersPROC8b		No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Dedicated facilityPROC8b		No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Non dedicated facilityPROC8a		No other specific measures identified.	
Operation and lubrication of henergy open equipmentIndoorPROC17PROC18	igh	Restrict area of openings to equipment.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Operation and lubrication of high energy open equipmentOut-doorPROC17	Ensure operation is undertaken of Avoid carrying out activities involution 4 hours , or: Wear a respirator conforming to better.	lving exposure for more
Maintenance (of larger plant items) and machine set upPROC8b	No other specific measures ident	tified.
Maintenance (of larger plant items) and machine set upOperation is carried out at elevated temperature (> 20°C above ambient temperature).Dedicated facilityPROC8b	Drain down system prior to equip nance.	oment opening or mainte-
Maintenance of small itemsOpera-	Provide enhanced general ventil	ation by mechanical
tion is carried out at elevated tem- perature (> 20°C above ambient temperature).Non-dedicated facili- tyPROC8a	means. Avoid carrying out operation for r	more than 4 hours.
Engine lubricant servicePROC9	No other specific measures iden	tified.
ManualRolling, BrushingPROC10	No other specific measures iden	tified.
SprayingPROC11	Avoid carrying out activities involution 1 hour. , or: Wear a respirator conforming to A/P2 filter or better.	
Treatment by dipping and pour- ingPROC13	No other specific measures iden	tified.
Storage.PROC1PROC2	Store substance within a closed	system.
Section 2.2 Contr	rol of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in region	on:	0,1
Regional use tonnage (tonnes/year)		50
Fraction of Regional tonnage used to		5,0E-04
Annual site tonnage (tonnes/year):		2,5E-02
Maximum daily site tonnage (kg/day):	6,8E-02
Frequency and Duration of Use		3,32 32
Continuous release.		
Emission Days (days/year):		365
Environmental factors not influen	ced by risk management	000
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
Other Operational Conditions affe	cting Environmental Exposure	1 - 2 -
Release fraction to air from process		1,0E-02
	• • • • • • • • • • • • • • • • • • • •	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Release fraction to wastewater from process (initial release prior to	1,0E-02
RMM):	
Release fraction to soil from process (initial release prior to RMM):	1,0E-02
Technical conditions and measures at process level (source) to pro	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit discharge	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	
Treat onsite wastewater (prior to receiving water discharge) to provide	0
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	,
Total efficiency of removal from wastewater after onsite and offsite	94,6
(domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (MSafe) based on release following	18
total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste for	r disposal
External treatment and disposal of waste should comply with applicable	
regulations.	Ü
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	local and/or regiona
regulations.	

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	
indicated	

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000767	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Lubricants- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 7, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 13, PROC 17, PROC 18 Environmental Release Categories: ERC4, ERC7, ESVOC SpERC 4.6a.v1
Scope of process	Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Ris	k Management Measures	
General exposures (closed systems)PROC1PROC2PROC	23	No other specific measures identified.	
General exposures (open systems)PROC4		No other specific measures identified.	
Bulk transfersPROC8b		No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Non-dedicated facilityPROC8a		No other specific measures identified.	
Filling/ preparation of equipme from drums or containers.Dedicated facilityPROC8b		No other specific measures identified.	
Initial factory fill of equip- mentPROC9		No other specific measures identified.	
Operation and lubrication of high energy open equipmentPROC17PROC18		No other specific measures identified.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

ManualRolling, Brush-	No other specific measures identified	
ingPROC10		
Treatment by dipping and pour- ingPROC13	No other specific measures identified	d.
SprayingPROC7	Minimise exposure by partial enclose equipment and provide extract venti	
Maintenance (of larger plant items) and machine set up-PROC8b	No other specific measures identified	d.
Maintenance (of larger plant items) and machine set upOperation is carried out at elevated temperature (> 20°C above ambient temperature).PROC8b	Drain down and flush system prior to maintenance.	o equipment opening or
Maintenance of small itemsPROC8a	No other specific measures identified	d.
Remanufacture of reject articlesPROC9	No other specific measures identifie	d.
Storage.PROC1PROC2	Store substance within a closed syst	tem.
Section 2.2 C	ontrol of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in	region:	0,1
Regional use tonnage (tonnes/ye		630
Fraction of Regional tonnage use		0,16
Annual site tonnage (tonnes/yea		100
Maximum daily site tonnage (kg/		5,0E+03
Frequency and Duration of Us		7 0,02 : 00
Continuous release.	<u> </u>	
Emission Days (days/year):		20
Environmental factors not infl	uenced by risk management	120
Local freshwater dilution factor:	acroca by new management	10
Local marine water dilution factor	r:	100
	affecting Environmental Exposure	1.00
•	ess (initial release prior to RMM):	5,0E-03
	rom process (initial release prior to	3,0E-05
Release fraction to soil from process (initial release prior to RMM): 1,0E-03		
	sures at process level (source) to pr	
	sites thus conservative process re-	
lease estimates used.	·	
Technical onsite conditions ar	nd measures to reduce or limit disch	arges, air emis-
sions and releases to soil		
	re is driven by freshwater sediment.	
Prevent discharge of undissolved substance to or recover from onsite		
wastewater.		
No wastewater treatment require		
Treat air emission to provide a ty	pical removal efficiency of (%)	70

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Treat onsite wastewater (prior to receiving water discharge) to provide	0	
the required removal efficiency of >= (%)		
If discharging to domestic sewage treatment plant, no secondary	0	
wastewater treatment required.		
Organisational measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils.		
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage	94,6	
treatment (%)		
Total efficiency of removal from wastewater after onsite and offsite	94,6	
(domestic treatment plant) RMMs (%)		
Maximum allowable site tonnage (MSafe) based on release following	8,9E+05	
total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste for	r disposal	
External treatment and disposal of waste should comply with applicable	local and/or regional	
regulations.	J	
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local and/or regional		
regulations.		
-		

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO	
Section 4.1 - Health		
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management		
Measures/Operational Conditions outlined in Section 2 are implemented.		
Whore other Rick Management Measures/Operational Conditions are adopted then users		

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000766	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Oil and Gas field drilling and production operations- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b Environmental Release Categories: ERC4, ESVOC SpERC 4.5a.v1
Scope of process	Oil field well drilling and production operations (including drilling muds and well cleaning) including material transfers, onsite formulation, well head operations, shaker room activities and related maintenance.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Section 2.1	Control of Worker Exposure
Product Characteristics	
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,
Frequency and Duration of	
Covers daily exposures up to	8 hours (unless stated differently).
Other Operational Conditio	
	an 20°C above ambient temperature (unless stated differently). ard of occupational hygiene is implemented.
Contributing Scenarios	Risk Management Measures
Bulk transfersDedicated facilityPROC8b	No other specific measures identified.
Filling/ preparation of equipment from drums or containers.Dedicated facilityPROC8b	No other specific measures identified.
Drilling mud (re-)formulationPROC3	No other specific measures identified.
Drill floor operationsPROC4	No other specific measures identified.
Operation of solids filtering equipment - vapour exposuresPROC4	No other specific measures identified.
Cleaning of solids filtering equipmentPROC8a	No other specific measures identified.
Treatment and disposal of filtered solidsPROC3	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Process samplingPROC3	No other specific measures identified.	
General exposures (closed systems)PROC1	No other specific measures identified.	
Pouring from small containersPROC8a	No other specific measures identified.	
General exposures (open systems)PROC4	No other specific measures identified.	
Equipment cleaning and maintenancePROC8a	No other specific measures identified.	
Storage.PROC1PROC2	Store substance within a closed system.	
Section 2.2	Control of Environmental Exposure	
No exposure assessment pre	No exposure assessment presented for the environment.	

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

No exposure assessment presented for the environment.

Quantitative exposure and risk assessment not possible due to lack of emissions to aquatic environment.

Qualitative approach used to conclude safe use.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users

Where other Risk Management Measures/Operational Conditions are adopted, then use should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

No exposure assessment presented for the environment.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

Exposure occitatio - Wor	Exposure Scenario - Worker	
30000000765		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Use in Cleaning Agents- Professional	
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 13 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.4b.v1	
Scope of process	Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).	

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures	
Filling/ preparation of equipme from drums or contain-	'	
ers.Dedicated facilityPROC8b Filling/ preparation of equipme from drums or containers.Non-dedicated facilityPROC8a	ent No other specific measures identified.	
Automated process with (semi closed systems.Use in contain systemsPROC2	, ,	
Automated process with (semi closed systems.Drum/batch trafersUse in contained systemsPROC3		
Semi Automated process. (e.g Semi automatic application of care and maintenance prod- ucts)PROC4	•	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

ManualSurfacesCleaningDipping, immersion and pouringPROC13	No other specific measures identified.
Cleaning with low-pressure washersRolling, Brushingno sprayingPROC10	No other specific measures identified.
Cleaning with high pressure washersSprayingIndoorPROC11	Limit the substance content in the product to 5 %. , or: Wear a respirator conforming to EN140 with Type A filter or better.
Cleaning with high pressure washersSprayingOutdoorPROC11	Limit the substance content in the product to 5 %. , or: Wear a respirator conforming to EN140 with Type A filter or better.
ManualSurfacesCleaningPROC10	No other specific measures identified.
Ad hoc manual application via trigger sprays, dipping, etc.Rolling, BrushingPROC10	No other specific measures identified.
Cleaning of medical devicesPROC4	No other specific measures identified.
Storage.PROC1	Store substance within a closed system.

Section 2.2	Control of Environmental Exposure		
Substance is complex UVCB.			
, , ,	Predominantly hydrophobic.		
Amounts Used			
Fraction of EU tonnage used	in region:	0,1	
Regional use tonnage (tonnes		14	
Fraction of Regional tonnage	used locally:	5,0E-04	
Annual site tonnage (tonnes/y	vear):	7,1E-03	
Maximum daily site tonnage (kg/day):	1,9E-02	
Frequency and Duration of	Use		
Continuous release.			
Emission Days (days/year):		365	
Environmental factors not influenced by risk management			
Local freshwater dilution factor	or:	10	
Local marine water dilution factor:		100	
	ns affecting Environmental Exposure		
Release fraction to air from pr	ocess (initial release prior to RMM):	2,0E-02	
Release fraction to wastewate	er from process (initial release prior to	1,0E-06	
RMM):			
	process (initial release prior to RMM):	0	
Technical conditions and measures at process level (source) to prevent release			
	s sites thus conservative process re-		
lease estimates used.			
Technical onsite conditions and measures to reduce or limit discharges, air emis-			
sions and releases to soil			
Risk from environmental expo	•		
No wastewater treatment requ	uired.		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Revision Date: SDS Number: 800001007476 Version Date of last issue: 28.03.2024

27.12.2024 Print Date 03.01.2025 8.0

	•	
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	0	
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0	
Organisational measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils.		
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage	94,6	
treatment (%)		
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	5,4	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste for disposal		
External treatment and disposal of waste should comply with applicable local and/or regional		
regulations.		
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable local and/or regional		

regulations.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has	been used to estimate workplace exposures unless otherwise

indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO	
Section 4.1 - Health		
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management		
Measures/Operational Conditions outlined in Section 2 are implemented.		
Where other Risk Management Measures/Operational Conditions are adopted, then users		

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management

Required removal efficiency for wastewater can be achieved using onsite/offsite technolo-

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

gies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000764	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Cleaning Agents- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 7, PROC 8a, PROC 8b, PROC 10, PROC 13 Environmental Release Categories: ERC4, ESVOC SpERC 4.4a.v1
Scope of process	Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand), related equipment cleaning and maintenance.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration o	f Use	
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Condition	ons affecting Exposure	
Assumes use at not more th	an 20°C above ambient temperature (unless stated differently).	

Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.

Contributing Scenarios Risk Management Measures Bulk transfersPROC8a No other specific measures identified. Automated process with (semi) No other specific measures identified. closed systems. Use in contained systemsPROC2 Automated process with (semi) No other specific measures identified. closed systems. Drum/batch transfersUse in contained batch processesPROC3 Application of cleaning products in No other specific measures identified. closed systemsPROC2 Filling/ preparation of equipment No other specific measures identified. from drums or containers.PROC8b Use in contained batch process-No other specific measures identified. esPROC4

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Degreasing small objects in cleaning stationPROC13	No other specific measures identified.		
Cleaning with low-pressure washersPROC10	No other specific measures identified.		
Cleaning with high pressure washersPROC7	Limit the substance content in the product to 1 %. , or: Avoid carrying out operation for more than 1 hour.		
	, alternatively: Wear a respirator conforming to EN140 with Type A filter or better.		
ManualSurfacesCleaningPROC10	No other specific measures identified.		
Storage.PROC1	Store substance within a closed sy	stem.	
Section 2.2 Con	trol of Environmental Exposure		
Substance is complex UVCB.	•		
Predominantly hydrophobic.			
Amounts Used			
Fraction of EU tonnage used in reg	ion:	0,1	
Regional use tonnage (tonnes/year		240	
Fraction of Regional tonnage used		0,41	
Annual site tonnage (tonnes/year):		100	
Maximum daily site tonnage (kg/da	v):	5,0E+03	
Frequency and Duration of Use		- ·	
Continuous release.			
Emission Days (days/year):		20	
Environmental factors not influen	nced by risk management	1	
Local freshwater dilution factor:		10	
Local marine water dilution factor:		100	
Other Operational Conditions aff	ecting Environmental Exposure	1	
Release fraction to air from process		1,0	
Release fraction to wastewater from process (initial release prior to RMM):		3,0E-06	
Release fraction to soil from proces	s (initial release prior to RMM):	0	
	res at process level (source) to pr	event release	
Common practices vary across site lease estimates used.			
	measures to reduce or limit disch	arges, air emis-	
	is driven by freshwater	T	
Risk from environmental exposure is driven by freshwater. Prevent discharge of undissolved substance to or recover from onsite		+	
wastewater.			
No wastewater treatment required.			
Treat air emission to provide a typical removal efficiency of (%)		70	
Treat onsite wastewater (prior to receiving water discharge) to provide		0	
the required removal efficiency of >= (%)			
If discharging to domestic sewage treatment plant, no secondary		0	
wastewater treatment required.			
Organisational measures to prev	ent/limit release from site		
Do not apply industrial sludge to na			

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Sludge should be incinerated, contained or reclaimed.			
Conditions and Measures related to municipal sewage treatment p	lant		
Estimated substance removal from wastewater via domestic sewage	94,6		
treatment (%)			
Total efficiency of removal from wastewater after onsite and offsite	94,6		
(domestic treatment plant) RMMs (%)			
Maximum allowable site tonnage (MSafe) based on release following	1,2E+06		
total wastewater treatment removal (kg/d)			
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03		
Conditions and Measures related to external treatment of waste for disposal			
External treatment and disposal of waste should comply with applicable local and/or regional			

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	

indicated.

Section 3.2 - Environment

SECTION A

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

32011014	EXPOSURE SCENARIO	
Section 4.1 - Health		
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management		
Measures/Operational Conditions outlined in Section 2 are implemented.		
Where other Risk Management Measures/Operational Conditions are adopted, then users		

CHIDANCE TO CHECK COMPLIANCE WITH THE

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000763	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings- Professional
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 13, PROC 15, PROC 19 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.3b.v1
Scope of process	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assume a second and the cooperation of the cooperat		

Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.

/ todamos a goda basis standa	a or occupational riygions to implementous
Contributing Scenarios	Risk Management Measures
General exposures (closed systems)PROC1	No other specific measures identified.
Filling/ preparation of equipme from drums or containers.Use contained systemsPROC2	·
General exposures (closed systems)Use in contained systemsPROC2	No other specific measures identified.
Preparation of material for app cationUse in contained batch processesPROC3	li- No other specific measures identified.
Film formation - air dryingPRO	No other specific measures identified.
Preparation of material for app cationPROC5	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Material transfersDrum/batch transfersNon-dedicated facilityPROC8aPROC8b	No other specific measures identified.
Roller, spreader, flow applicationPROC10	No other specific measures identified.
ManualSprayingIndoorPROC11	Provide a good standard of general or controlled ventilation (5 to 15 air changes per hour). Limit the substance content in the mixture to 50 %. , or: Wear a respirator conforming to EN140 with Type A filter or better.
ManualSprayingOutdoorPROC11	Ensure operation is undertaken outdoors. Limit the substance content in the mixture to 50 %. Avoid carrying out activities involving exposure for more than 4 hours , or: Wear a respirator conforming to EN140 with Type A filter or better.
Dipping, immersion and pour- ingPROC13	No other specific measures identified.
Laboratory activitiesPROC15	No other specific measures identified.
Hand application - fingerpaints, pastels, adhesivesIn-doorPROC19	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Hand application - fingerpaints, pastels, adhesivesOut-doorPROC19	Ensure operation is undertaken outdoors.
Storage.PROC1	Store substance within a closed system.

Section 2.2	Control of Environmental Exposure		
Substance is complex UVCB.			
Predominantly hydrophobic.	Predominantly hydrophobic.		
Amounts Used			
Fraction of EU tonnage used	in region:	0,1	
Regional use tonnage (tonnes	s/year):	110	
Fraction of Regional tonnage	used locally:	5,0E-04	
Annual site tonnage (tonnes/	/ear):	5,4E-02	
Maximum daily site tonnage (kg/day):		0,15	
Frequency and Duration of Use			
Continuous release.			
Emission Days (days/year):		365	
Environmental factors not influenced by risk management			
Local freshwater dilution factor	or:	10	
Local marine water dilution factor:		100	
Other Operational Conditions affecting Environmental Exposure			
Release fraction to air from process (initial release prior to RMM): 0,98		0,98	
Release fraction to wastewater from process (initial release prior to RMM):		1,0E-02	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Release fraction to soil from process (initial release prior to RMM):	1,0E-02
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	1
Risk from environmental exposure is driven by freshwater.	
No wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	0
If discharging to domestic sewage treatment plant, no secondary wastewater treatment required.	0
Organisational measures to prevent/limit release from site	1
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	4,0E+01
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste fo	r disposal
External treatment and disposal of weets about disposal visits and include	local and/or regiona
External treatment and disposal of waste should comply with applicable	· ·
regulations.	

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.		

Section 3.2 -Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management	
Measures/Operational Conditions outlined in Section 2 are implemented.	
Where other Risk Management Measures/Operational Conditions are adopted, then users	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000762	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 7, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 13, PROC 14, PROC 15 Environmental Release Categories: ERC4, ESVOC SpERC 4.3a.v1
Scope of process	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Sub-	Covers use of substance/product up to 100% (unless stated	
stance in Mixture/Article	differently).,	
Frequency and Duration of		
	8 hours (unless stated differently).	
Other Operational Conditio		
	in 20°C above ambient temperature (unless stated differently).	
Assumes a good basic standard of occupational hygiene is implemented.		
Contributing Scenarios Risk Management Measures		
General exposures (closed systems)PROC1	No other specific measures identified.	
General exposures (closed systems)with sample collectionUse in contained systemsPROC2	No other specific measures identified.	
Film formation - force dry- ing, stoving and other tech- nologies.(closed sys- tems)Operation is carried out at elevated temperature (> 20°C above ambient temperature).PROC2	No other specific measures identified.	
Mixing operations (closed systems)Use in contained	No other specific measures identified.	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

batch processesPROC3		
Film formation - air dry-	No other specific measures identified.	
ingPROC4	The earler openine infoacured identificati	
Preparation of material for	No other specific measures identified.	
applicationMixing opera-	The earler openine measures racramear	
tions (open sys-		
tems)PROC5		
Spraying (automat-	Carry out in a vented booth provided with	h laminar airflow.
ic/robotic)PROC7		
ManualSprayingPROC7	Carry out in a vented booth provided with	h laminar airflow.
1 7 3	, or:	
	Wear a respirator conforming to EN140	with Type A filter or
	better.	,
Material transfersNon-	No other specific measures identified.	
dedicated facilityPROC8a		
Material transfersDedicated	No other specific measures identified.	
facilityPROC8b		
Roller, spreader, flow appli-	No other specific measures identified.	
cationPROC10		
Dipping, immersion and	No other specific measures identified.	
pouringPROC13		
Laboratory activi-	No other specific measures identified.	
tiesPROC15		
Material trans-	No other specific measures identified.	
fersDrum/batch transfer-		
sTransfer from/pouring from		
containersPROC9	Store substance within a closed system.	
Production or preparation or articles by tabletting,	Store substance within a closed system.	
compression, extrusion or		
pelletisationPROC14		
Equipment cleaning and	No other specific measures identified.	
maintenancePROC8a	The earler openine medeares identified.	
Storage.PROC1	Store substance within a closed system.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB		
Predominantly hydrophobic.		
Amounts Used		1
	Fraction of EU tonnage used in region: 0,1	
		370
Fraction of Regional tonnage		1
Annual site tonnage (tonnes/		370
Maximum daily site tonnage		1,9E+04
Frequency and Duration of		
Continuous release.		
Emission Days (days/year):		
Environmental factors not i	nfluenced by risk management	
Local freshwater dilution factor	or:	10
Local marine water dilution factor: 100		100

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	9,8E-01
Release fraction to wastewater from process (initial release prior to	7,0E-04
RMM):	7,02 01
Release fraction to soil from process (initial release prior to RMM):	0
Technical conditions and measures at process level (source) to pro	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit discharge	arges, air emis-
sions and releases to soil	3 - 7
Risk from environmental exposure is driven by freshwater sediment.	
Prevent discharge of undissolved substance to or recover from onsite	
wastewater.	
If discharging to domestic sewage treatment plant, no secondary	
wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	90
Treat onsite wastewater (prior to receiving water discharge) to provide	89,1
the required removal efficiency of >= (%)	
If discharging to domestic sewage treatment plant, no secondary	0
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	
Total efficiency of removal from wastewater after onsite and offsite	94,6
(domestic treatment plant) RMMs (%)	
Maximum allowable site tonnage (MSafe) based on release following	3,8E+04
total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste for	
External treatment and disposal of waste should comply with applicable	local and/or regional
regulations.	
Can ditions and massages related to external resource of	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	iocai and/or regional
regulations.	

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise		
indicated.		

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Castian A.A. Haalth	

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000761	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Formulation & (re)packing of substances and mixtures- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 5, PROC 8a, PROC 8b, PROC 9, PROC 14, PROC 15 Environmental Release Categories: ERC2, ESVOC SpERC 2.2.v1
Scope of process	Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Worker Exposure	
Product Characteristics	Product Characteristics	
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently).		

Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.

Contributing Scenarios	Risk Management Measures
General exposures (closed systems)PROC1PROC2PRO	No other specific measures identified.
General exposures (open systems)PROC4	No other specific measures identified.
Batch processes at elevated temperaturesOperation is carried out at elevated temperature (> 20°C above ambient temperature).PROC3	ıre
Process samplingPROC3	No other specific measures identified.
Laboratory activitiesPROC15	No other specific measures identified.
Bulk transfersPROC8b	No other specific measures identified.
Mixing operations (open sys-	No other specific measures identified.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

tems)PROC5

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

-,,		
ManualTransfer from/pouring from containersNon-dedicated	No other specific measures identified	l.
facilityPROC8a		
Drum/batch transfersDedicated	No other enecific measures identifies	1
facilityPROC8b	No other specific measures identified	l .
Production or preparation or	No other specific measures identified	l.
articles by tabletting, compres-	'	
sion, extrusion or pelletisa-		
tionPROC14		
Drum and small package fill-	No other specific measures identified	l.
ingPROC9	•	
Equipment cleaning and	No other specific measures identified	l.
maintenancePROC8a	'	
Storage.PROC1PROC2	Store substance within a closed syst	em.
Section 2.2 C	entral of Environmental Expecure	
Substance is complex UVCB.	ontrol of Environmental Exposure	
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in r		0,1
Regional use tonnage (tonnes/ye		70
Fraction of Regional tonnage use		1
Annual site tonnage (tonnes/yea	r):	70
Maximum daily site tonnage (kg/		7,0E+03
Frequency and Duration of Us	e	
Continuous release.		
Emission Days (days/year):		10
Environmental factors not influ	uenced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution facto	r:	100
Other Operational Conditions	affecting Environmental Exposure	
Release fraction to air from proc	ess (initial release prior to RMM):	1,0E-02
Release fraction to wastewater f	rom process (initial release prior to	2,0E-04
RMM):	·	
Release fraction to soil from production	cess (initial release prior to RMM):	1,0E-04
Technical conditions and mea	sures at process level (source) to pro	event release
Common practices vary across s	sites thus conservative process re-	
lease estimates used.		
Technical onsite conditions ar	nd measures to reduce or limit discha	arges, air emis-
sions and releases to soil		
Risk from environmental exposu	re is driven by freshwater sediment.	
Prevent discharge of undissolved	d substance to or recover from onsite	
wastewater.		
No wastewater treatment require	ed.	
Treat air emission to provide a ty	pical removal efficiency of (%)	0
Treat onsite wastewater (prior to	receiving water discharge) to provide	0
the required removal efficiency of	of >= (%)	
If discharging to domestic sewage		0
wastewater treatment required.		
Organisational measures to pr	event/limit release from site	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Do not apply industrial sludge to natural soils.

Sludge should be incinerated, contained or reclaimed.

Conditions and Measures related to municipal sewage treatment plant		
Estimated substance removal from wastewater via domestic sewage treatment (%)	94,6	
Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs (%)	94,6	
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	1,3E+05	
Assumed domestic sewage treatment plant flow (m3/d) 2,0E+03		

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION
-----------	----------------------------

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000759	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Manufacture of substance- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 15 Environmental Release Categories: ERC1, ERC4, ESVOC SpERC 1.1.v1
Scope of process	Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/ recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MA MEASURES	ANAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures
General exposures (closed systems)PROC1PROC2PROC	No other specific measures identified.
General exposures (open systems)PROC4	No other specific measures identified.
Process samplingPROC8b	No other specific measures identified.
Laboratory activitiesPROC15	No other specific measures identified.
Bulk transfers(open systems)PROC8b	No other specific measures identified.
Bulk transfers(closed systems)PROC8b	No other specific measures identified.
Equipment cleaning and maintenancePROC8a	No other specific measures identified.
Storage.PROC1PROC2	Store substance within a closed system.
Section 2.2	Control of Environmental Exposure

Section 2.2 Control of Environmental Exposure

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

redominantly hydrophobic. mounts Used action of EU tonnage used in region: action of EU tonnage (tonnes/year): action of Regional tonnage (tonnes/year): pays 5E+03 action of Regional tonnage (tonnes/year): pays 6E+03 action of Regional tonnage (kg/day): pays 6E+03 aximum daily site tonnage (kg/day): pays 6E+04 requency and Duration of Use continuous release. mission Days (days/year): pays (days): pays (days/year): pays (days/year): pays (days/year): pays (days/year): pays (days/year): pays (days/year): pays (days): pays (days/year): pays (days/year): pays (days/year): pays (days/year): pays (days-year): pays (Outstance is secondary IN/OD	
action of EU tonnage used in region: action of EU tonnage used in region: action of Regional tonnage used locally: 3,5E+03 aximum daily site tonnage (kg/day): 3,5E+04 equency and Duration of Use antinuous release. 3,5E+04 action of Use antinuous release. 3,5E+04 action of Use antinuous release. 3,5E+04 action of Use antinuous release. 3,6E-04 antinuous release. 3,6E-04 antinuous release. 3,6E-04 antinuous release. 3,6E-04 antinuous release fraction factor: 3,0E-04 antinuous release fraction of a feeting Environmental Exposure alease fraction to air from process (initial release prior to RMM): 3,0E-02 alease fraction to soil from process (initial release prior to RMM): 3,0E-04 actional conditions and measures at process level (source) to prevent release actional conditions and measures at process level (source) to prevent release actional nosite conditions and measures to reduce or limit discharges, air emis and releases to soil before a treatment lexposure is driven by freshwater sediment. actional onsite conditions and measures to reduce or limit discharges, air emis and releases to soil before a treatment plant, no secondary astewater treatment required. act air emission to provide a typical removal efficiency of (%) act air emission to provide a typical removal efficiency of (%) act air emission to provide a typical removal efficiency of (%) act air emission to provide a typical removal efficiency of (%) act air emission to provide a typical removal efficiency of (%) act and the action of the provide antural soils. action and Measures related to municipal sewage treatment plant attimated substance removal from wastewater via domestic sewage action and Measures related to municipal sewage treatment plant attimated substance removal from wastewater after onsite and offsite action of the provide and measures an	Substance is complex UVCB.	
action of EU tonnage used in region: glonal use tonnage (tonnes/year): glonal use tonnage (tonnes/year): glonal use tonnage (tonnes/year): glonal use tonnage (tonnes/year): glonal tonnage (tonnes/year): glonal site tonnage (kg/day): glonal site tonnage (kg/day): glonal during tonnage (, , I	
action of Regional tonnage (tonnes/year): action of Regional tonnage used locally: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Tai
action of Regional tonnage used locally: nual site tonnage (tonnes/year): saximum daily site tonnage (kg/day): equency and Duration of Use ontinuous release. mission Days (days/year): nual freshwater dilution factor: coal marine water dilution factor: ther Operational Conditions affecting Environmental Exposure elease fraction to air from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): process elease fraction to soil from process (initial release prior to RMM): process elease fraction to soil from process (initial release prior to RMM): process elease fraction to soil from process (initial release prior to RMM): process elease fraction to soil from process (initial release prior to RMM): process elease estimates used. process level (source) to prevent release promon practices vary across sites thus conservative process re- ase estimates used. process re- ase estimates used. process from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide er equired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. required removal efficiency of reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater repaired to municipal sewage treatment		
mual site tonnage (tonnes/year): aximum daily site tonnage (kg/day): 9,5E+03 aximum daily site tonnage (kg/day): 9,5E+04 equency and Duration of Use Intinuous release. Inission Days (days/year): Into Intinuous release. Inission Days (days/year): Into Intinuous release. Inission Days (days/year): Into Intinuous release. Intinuous release releas		·
aximum daily site tonnage (kg/day): equency and Duration of Use ontinuous release. mission Days (days/year): noted freshwater dilution factor: cher Operational Conditions affecting Environmental Exposure elease fraction to air from process (initial release prior to RMM): elease fraction to wastewater from process (initial release prior to RMM): elease fraction to wastewater from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): 1,0E-04 echnical conditions and measures to reduce or limit discharges, air emisons and releases to soil externate used. echnical onsite conditions and measures to reduce or limit discharges, air emisons and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide eat consite wastewater (prior to receiving water discharge) to provide eat required memoval efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. erganisational measures to prevent/limit release from site on not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. conditi		<u> </u>
requency and Duration of Use ontinuous release. Invironmental factors not influenced by risk management ocal freshwater dilution factor: Invironmental factor and influenced by risk management ocal marine water dilution factor: Invironmental Exposure belase fraction to air from process (initial release prior to RMM): Invironmental Exposure belase fraction to soil from process (initial release prior to RMM): Invironmental Exposure belase fraction to soil from process (initial release prior to RMM): Invironmental Exposure belase fraction to soil from process (initial release prior to RMM): Invironmental Exposure belase fraction to soil from process (initial release prior to RMM): Invironmental Exposure is driven by freshwater sediment. Invironmental Exposure is driven by freshwater s		
Initinuous release. Inission Days (days/year): Inission Days (days/year): Inission Days (days/year): Initinuous release. Inission Days (days/year): Initinuous release fraction to actors Initinuous release fraction factor: Initinuous release fraction to air from process (initial release prior to RMM): Initinuous release fraction to wastewater from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release fraction to soil from process (initial release prior to RMM): Initinuous release prio		9,5E+04
Inission Days (days/year): Invironmental factors not influenced by risk management Incal freshwater dilution factor: Incal freshwater dilution factor: Incal freshwater dilution factor: Incal marine water delate prior to RMM): Incal cal marine water from process (initial release prior to RMM): Incal cal marine water from process (initial release prior to RMM): Incal cal marine water from process (initial release prior to RMM): Incal cal marine water release prior to RMM): Incal cal marine water from process (initial release prior to RMM): Incal cal marine water from the marine process release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal marine water release prior to RMM): Incal cal cal cal marine water release prior to RMM): Incal cal cal cal marine water release prior to RMM): Incal cal cal cal marine water release prior to RMM): Incal cal cal cal cal cal cal cal cal cal		
nvironmental factors not influenced by risk management cal freshwater dilution factor: cher Operational Conditions affecting Environmental Exposure clease fraction to air from process (initial release prior to RMM): clease fraction to wastewater from process (initial release prior to RMM): clease fraction to wastewater from process (initial release prior to RMM): clease fraction to soil from process (initial release prior to RMM): clease fraction to soil from process (initial release prior to RMM): clease fraction to soil from process (initial release prior to RMM): clease fraction to soil from process (initial release prior to RMM): clease fraction to soil from process (initial release prior to RMM): clease estimates used. chical conditions and measures at process level (source) to prevent release prior process release estimates used. chical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil sk from environmental exposure is driven by freshwater sediment. cevent discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. ceat air emission to provide a typical removal efficiency of (%) ceat anistie wastewater (prior to receiving water discharge) to provide certained removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. certained removal efficiency of prevent/limit release from site on ort apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. cevent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant tsimated substance removal from wastewater after onsite and offsite ontal efficiency of removal from wastewater after onsite and offsite ontal efficiency of removal from wastewater after onsite and offsite ontal treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) ba	Continuous release.	
total freshwater dilution factor: total marine water dilution factor: ther Operational Conditions affecting Environmental Exposure elease fraction to air from process (initial release prior to RMM): elease fraction to wastewater from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): 1,0E-04 echnical conditions and measures at process level (source) to prevent release prior to receiving water sediment. event discharges of undissolved substance to reduce or limit discharges, air emissons and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. erequired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. reganisational measures to prevent/limit release from site onot apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant externated substance removal from wastewater via domestic sewage pathement (%) at all efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following datal wastewater treatment removal (kg/d) sounded of the process (initial release prior to RMM): 1,0E-04 enditions and Measures related to external treatment of waste for disposal	Emission Days (days/year):	100
cal marine water dilution factor: ther Operational Conditions affecting Environmental Exposure elease fraction to air from process (initial release prior to RMM): elease fraction to wastewater from process (initial release prior to RMM): elease fraction to wastewater from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): elease fraction to soil from process (initial release prior to RMM): 1,0E-04 elease fraction to soil from process (initial release prior to RMM): 1,0E-04 elease fraction to soil from process (initial release prior to RMM): 1,0E-04 elease fraction to soil from process (initial release from site elease fraction to soil from process (initial release prior to RMM): 1,0E-04 elease fraction to soil from process (initial release prior to RMM): 1,0E-04 elease fraction to soil from elease from site elease to soil site of receiving water discharge in the fraction of the	Environmental factors not influenced by risk management	
ther Operational Conditions affecting Environmental Exposure elease fraction to air from process (initial release prior to RMM): 1,0E-02 elease fraction to wastewater from process (initial release prior to RMM): 3,0E-04 MM): 3,0E-04 MM): 1,0E-04 elease fraction to soil from process (initial release prior to RMM): 1,0E-04 echnical conditions and measures at process level (source) to prevent release emmon practices vary across sites thus conservative process re- ase estimates used. echnical onsite conditions and measures to reduce or limit discharges, air emis ens and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite discharging to domestic sewage treatment plant, no secondary eastewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide er required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary estewater treatment required. eganisational measures to prevent/limit release from site on tapply industrial sludge to natural soils. event discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant event discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant extended to the plant of the plant	Local freshwater dilution factor:	10
elease fraction to air from process (initial release prior to RMM): 1,0E-02	Local marine water dilution factor:	100
elease fraction to wastewater from process (initial release prior to MM): elease fraction to soil from process (initial release prior to RMM): 1,0E-04 chnical conditions and measures at process level (source) to prevent release on mon practices vary across sites thus conservative process rease estimates used. chnical onsite conditions and measures to reduce or limit discharges, air emisons and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide erequired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. granisational measures to prevent/limit release from site onot apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage patient (%) ontail efficiency of removal from wastewater after onsite and offsite of the plant of t	Other Operational Conditions affecting Environmental Exposure	
elease fraction to wastewater from process (initial release prior to MM): elease fraction to soil from process (initial release prior to RMM): 1,0E-04 chnical conditions and measures at process level (source) to prevent release on mon practices vary across sites thus conservative process rease estimates used. chnical onsite conditions and measures to reduce or limit discharges, air emisons and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide erequired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. granisational measures to prevent/limit release from site onot apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage patient (%) ontail efficiency of removal from wastewater after onsite and offsite of the plant of t	Release fraction to air from process (initial release prior to RMM):	1,0E-02
echnical conditions and measures at process level (source) to prevent release of process and measures at process level (source) to prevent release of process recase estimates used. Sechnical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil limit discharges are emissions and releases to soil limit discharges of undissolved substance to or recover from onsite discharge of undissolved substance to or recover from onsite discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat air emission to provide a typical removal efficiency of (%) go eat onsite wastewater (prior to receiving water discharge) to provide erequired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat and provided a substance to prevent/limit release from site on not apply industrial sludge to natural soils. Second provided and substance to or recover from onsite wastewater. Second provided and substance to or recover from onsite wastewater. Second provided p	Release fraction to wastewater from process (initial release prior to RMM):	3,0E-04
echnical conditions and measures at process level (source) to prevent release of process and measures at process level (source) to prevent release of process recase estimates used. Sechnical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil limit discharges are emissions and releases to soil limit discharges of undissolved substance to or recover from onsite discharge of undissolved substance to or recover from onsite discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat air emission to provide a typical removal efficiency of (%) go eat onsite wastewater (prior to receiving water discharge) to provide erequired removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat and provided a substance to prevent/limit release from site on not apply industrial sludge to natural soils. Second provided and substance to or recover from onsite wastewater. Second provided and substance to or recover from onsite wastewater. Second provided p	Release fraction to soil from process (initial release prior to RMM):	1,0E-04
common practices vary across sites thus conservative process rease estimates used. Sechnical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Set from environmental exposure is driven by freshwater sediment. Seevent discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat air emission to provide a typical removal efficiency of (%) Seat onsite wastewater (prior to receiving water discharge) to provide at required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. Seat air emission to provide a typical removal efficiency of (%) Seat active and the seat air emission to provide a typical removal efficiency of (%) Seat active and the seat air emission to provide a typical removal efficiency of (%) Seat active and the seat air emission to provide a typical removal efficiency of receiving water discharge) to provide Taylor and the seat air emission to provide a typical removal efficiency of receiving water at discharge from site Seat active and the seat air emission to provide a typical efficiency of removal from wastewater via domestic sewage Seat and Measures related to municipal sewage treatment plant efficiency of removal from wastewater via domestic sewage Seat active and the seat air emission to provide a typical efficiency of removal from wastewater after onsite and offsite of the seatment (%) Seat active and the seatment plant plant plant flow (m3/d) Seatment (%) Seatmen		
ase estimates used. Schnical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil Sk from environmental exposure is driven by freshwater sediment. Event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide e required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site on ot apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage patched to the seatment (%) conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage patched to the seatment plant plant) RMMs (%) assignment (%) stall efficiency of removal from wastewater after onsite and offsite of seatment plant) RMMs (%) assignment domestic reatment plant) RMMs (%) assignment domestic sewage treatment plant flow (m3/d) 1,0E+04 conditions and Measures related to external treatment of waste for disposal		
chnical onsite conditions and measures to reduce or limit discharges, air emisons and releases to soil sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide er required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site on not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage pathenet (%) onation and Measures related to municipal sewage treatment plant estimated substance removal from wastewater after onsite and offsite onditions of removal from wastewater after onsite and offsite onestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tall wastewater treatment removal (kg/d) summed domestic sewage treatment plant flow (m3/d) 1,0E+04 onditions and Measures related to external treatment of waste for disposal	lease estimates used.	
sk from environmental exposure is driven by freshwater sediment. event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide e required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site o not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage attention (%) obtal efficiency of removal from wastewater after onsite and offsite of statement plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tall wastewater treatment removal (kg/d) sumed domestic sewage treatment plant flow (m3/d) 1,0E+04 conditions and Measures related to external treatment of waste for disposal		arges, air emis-
event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. figanisational measures to prevent/limit release from site on to apply industrial sludge to natural soils. figure should be incinerated, contained or reclaimed. figure should be incinerated, contained or recover from onsite wastewater. fonditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage exament (%) figure ficiency of removal from wastewater after onsite and offsite of the part of the	sions and releases to soil	,
event discharge of undissolved substance to or recover from onsite astewater. discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. figanisational measures to prevent/limit release from site on to apply industrial sludge to natural soils. figure should be incinerated, contained or reclaimed. figure should be incinerated, contained or recover from onsite wastewater. fonditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage exament (%) figure ficiency of removal from wastewater after onsite and offsite of the part of the	Risk from environmental exposure is driven by freshwater sediment.	
discharging to domestic sewage treatment plant, no secondary astewater treatment required. eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site on to apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage estatment (%) rate of the fiction of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail efficiency of removal from wastewater after onsite and offsite of the plant (%) retail wastewater treatment plant) RMMs (%) retail wastewater treatment removal (kg/d) retail wastewater treatment removal (kg/d) retail wastewater treatment plant flow (m3/d) retail treatment of waste for disposal		
eat air emission to provide a typical removal efficiency of (%) eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide e required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary eastewater treatment required. reganisational measures to prevent/limit release from site o not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage pathment (%) otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) sumed domestic sewage treatment plant flow (m3/d) 1,0E+04 conditions and Measures related to external treatment of waste for disposal	wastewater.	
eat air emission to provide a typical removal efficiency of (%) eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide e required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary eastewater treatment required. reganisational measures to prevent/limit release from site o not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage pathment (%) otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) sumed domestic sewage treatment plant flow (m3/d) 1,0E+04 conditions and Measures related to external treatment of waste for disposal	If discharging to domestic sewage treatment plant, no secondary	
eat air emission to provide a typical removal efficiency of (%) eat onsite wastewater (prior to receiving water discharge) to provide e required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site o not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage patal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) eximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) essumed domestic sewage treatment plant flow (m3/d) conditions and Measures related to external treatment of waste for disposal	wastewater treatment required.	
reat onsite wastewater (prior to receiving water discharge) to provide required removal efficiency of >= (%) discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site o not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage patal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tall wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal	Treat air emission to provide a typical removal efficiency of (%)	90
discharging to domestic sewage treatment plant, no secondary astewater treatment required. rganisational measures to prevent/limit release from site on not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage eatment (%) ontal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal	Treat onsite wastewater (prior to receiving water discharge) to provide	74,9
discharging to domestic sewage treatment plant, no secondary astewater treatment required. In a stewater treatment solds and the stewater of t		
rganisational measures to prevent/limit release from site on not apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. Inditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage eatment (%) Inditions and Measures related to municipal sewage treatment plant estimated substance removal from wastewater via domestic sewage eatment (%) Inditions and Measures related to municipal sewage treatment plant (%) Inditions and Measures related to municipal sewage treatment plant flow (m3/d) Inditions and Measures related to external treatment of waste for disposal		0
rganisational measures to prevent/limit release from site of not apply industrial sludge to natural soils. Sudge should be incinerated, contained or reclaimed. Sevent discharge of undissolved substance to or recover from onsite wastewater. Sonditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage seatment (%) Solutional efficiency of removal from wastewater after onsite and offsite somestic treatment plant) RMMs (%) Saximum allowable site tonnage (MSafe) based on release following stal wastewater treatment removal (kg/d) Sesumed domestic sewage treatment plant flow (m3/d) Solutions and Measures related to external treatment of waste for disposal		
onot apply industrial sludge to natural soils. udge should be incinerated, contained or reclaimed. event discharge of undissolved substance to or recover from onsite wastewater. onditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage eatment (%) otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal		
udge should be incinerated, contained or reclaimed. revent discharge of undissolved substance to or recover from onsite wastewater. conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage eatment (%) conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage 94,6 conditions and from wastewater after onsite and offsite 94,6 conditions and measures related to external treatment of waste for disposal	•	
revent discharge of undissolved substance to or recover from onsite wastewater. Conditions and Measures related to municipal sewage treatment plant Stimated substance removal from wastewater via domestic sewage Patternet (%) Stall efficiency of removal from wastewater after onsite and offsite Somestic treatment plant) RMMs (%) Examinum allowable site tonnage (MSafe) based on release following Stall wastewater treatment removal (kg/d) Summed domestic sewage treatment plant flow (m3/d) Tonditions and Measures related to external treatment of waste for disposal		
conditions and Measures related to municipal sewage treatment plant stimated substance removal from wastewater via domestic sewage eatment (%) otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal		vastewater.
stimated substance removal from wastewater via domestic sewage eatment (%) potal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) sumed domestic sewage treatment plant flow (m3/d) and the sewage treatment plant flow (m3/d)	3	
stimated substance removal from wastewater via domestic sewage eatment (%) potal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) sumed domestic sewage treatment plant flow (m3/d) and the sewage treatment plant flow (m3/d)	Conditions and Measures related to municipal sewage treatment p	lant
pattment (%) otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal		
otal efficiency of removal from wastewater after onsite and offsite omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) onditions and Measures related to external treatment of waste for disposal	treatment (%)	,
omestic treatment plant) RMMs (%) aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) conditions and Measures related to external treatment of waste for disposal	Total efficiency of removal from wastewater after onsite and offsite	94,6
aximum allowable site tonnage (MSafe) based on release following tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) conditions and Measures related to external treatment of waste for disposal		, i
tal wastewater treatment removal (kg/d) ssumed domestic sewage treatment plant flow (m3/d) conditions and Measures related to external treatment of waste for disposal		4,4E+05
ssumed domestic sewage treatment plant flow (m3/d) 1,0E+04 conditions and Measures related to external treatment of waste for disposal		
onditions and Measures related to external treatment of waste for disposal		1.0E+04
	During manufacturing no waste of the substance is generated.	
anditions and massives related to system of massives of master	Conditions and measures related to external recovery of waste	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

During manufacturing no waste of the substance is generated.

SECTION 3 EXPOSURE ESTIMATION

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Date of last issue: 28.03.2024 Version Revision Date: SDS Number:

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000760	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Distribution of substance- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 9, PROC 15 Environmental Release Categories: ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC 6C, ERC 6D, ERC7, ESVOC SpERC 1.1b.v1
Scope of process	Loading (including marine vessel/barge, rail/road car and IBC loading) and repacking (including drums and small packs) of substance, including its sampling, storage, unloading distribution and associated laboratory activities.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MA MEASURES	NAGEMENT
Section 2.1	Control of Worker Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP	
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 100% (unless stated differently).,	
Frequency and Duration of Use		
Covers daily exposures up to 8 hours (unless stated differently).		
Other Operational Conditions affecting Exposure		
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.		

Contributing Scenarios	Risk Management Measures
General exposures (closed systems)PROC1PROC2PROC	No other specific measures identified.
General exposures (open systems)PROC4	No other specific measures identified.
Process samplingPROC3	No other specific measures identified.
Laboratory activitiesPROC15	No other specific measures identified.
Bulk transfers(closed systems)PROC8b	No other specific measures identified.
Bulk transfers(open systems)PROC8b	No other specific measures identified.
Drum and small package fill-ingPROC9	No other specific measures identified.
Equipment cleaning and maintenancePROC8a	No other specific measures identified.
Storage.PROC1PROC2	Store substance within a closed system.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	1
	<u>, L</u>
Amounts Used Fraction of EU tonnage used in region:	
Regional use tonnage (tonnes/year):	
Fraction of Regional tonnage used locally:	
,	6,8E-03 1,0
	50
<u>-</u>	
	20
uenced by risk management	1 20
zonocu by non managomeni	10
	100
	1 .00
	1,0E-04
	1,0E-05
om precess (miliar release prior to	1,02 00
cess (initial release prior to RMM):	1,0E-05
	1
mee mae concervance process re	
nd measures to reduce or limit disch	arges, air emis-
	,
re is driven by freshwater.	
	90
	0
je treatment plant, no secondary	0
event/limit release from site	
natural soils.	
ntained or reclaimed.	
om wastewater via domestic sewage	94,6
	94,6
	1,4E+04
	2,0E+03
of waste should comply with applicable	local and/or regiona
ted to external recovery of waste	
	ear):

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

regulations.

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000781	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Water treatment chemicals- Industrial
Use Descriptor	Sector of Use: SU3 Process Categories: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 13 Environmental Release Categories: ERC3, ERC4, ESVOC SpERC 3.22a.v1
Scope of process	Covers the use of the substance for the treatment of water at industrial facilities in open and closed systems.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT	
Section 2.1	MEASURES Control of Worker Exposure	
Product Characteristics	Control of Worker Exposure	
Physical form of product	Liquid vanour proceure + 0.5 kDo at STE)
Filysical form of product	Liquid, vapour pressure < 0.5 kPa at STF	
Concentration of the Sub-	Covers use of substance/product up to 1	00% (unless stated
stance in Mixture/Article	differently).,	,
Frequency and Duration of	Use	
Covers daily exposures up to	8 hours (unless stated differently).	
Other Operational Condition	ns affecting Exposure	
	an 20°C above ambient temperature (unles	
Assumes a good basic stand	ard of occupational hygiene is implemented	d.
Contailentin a Consonia	Dial Management Managemen	
Contributing Scenarios	Risk Management Measures	
Bulk transfersUse in con-	No other specific measures identified.	
tained systemsPROC2 Drum/batch transfersDedi-	No other specific measures identified.	
cated facilityPROC8b	The other specific measures identified.	
General exposures (closed	No other specific measures identified.	
systems)PROC3		
General exposures (open	No other specific measures identified.	
systems)PROC4		
Pouring from small containersPROC13	No other specific measures identified.	
Equipment maintenance- PROC8a	No other specific measures identified.	
Storage.PROC1	Store substance within a closed system.	
Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB	•	
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in region: 0,		0,1
Regional use tonnage (tonnes/year): 340		340

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Fraction of Regional tonnage used locally:	8,8E-02
Annual site tonnage (tonnes/year):	3,0E-01
Maximum daily site tonnage (kg/day):	1,0E+02
Frequency and Duration of Use	1,02102
Continuous release.	
Emission Days (days/year):	300
Environmental factors not influenced by risk management	300
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	1100
Release fraction to air from process (initial release prior to RMM):	5,0E-02
Release fraction to wastewater from process (initial release prior to	0,95
RMM):	0,50
Release fraction to soil from process (initial release prior to RMM):	0
Technical conditions and measures at process level (source) to pr	event release
Common practices vary across sites thus conservative process re-	
lease estimates used.	
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-
sions and releases to soil	
Risk from environmental exposure is driven by freshwater sediment.	
If discharging to domestic sewage treatment plant, additional onsite	
wastewater treatment required.	
Treat air emission to provide a typical removal efficiency of (%)	0
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%)	98,5
If discharging to domestic sewage treatment plant, no secondary	71,9
wastewater treatment required.	
Organisational measures to prevent/limit release from site	
Do not apply industrial sludge to natural soils.	
Sludge should be incinerated, contained or reclaimed.	
Conditions and Measures related to municipal sewage treatment p	lant
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	34,0
Total efficiency of removal from wastewater after onsite and offsite	98,5
(domestic treatment plant) RMMs (%)	30,3
Maximum allowable site tonnage (MSafe) based on release following	1,0E+02
total wastewater treatment removal (kg/d)	1,02+02
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03
Conditions and Measures related to external treatment of waste fo	
External treatment and disposal of waste should comply with applicable regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable	local and/or regional
regulations.	iocai and/or regional

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Worker

30000000782		
SECTION 1	EXPOSURE SCENARIO TITLE	
Title	Water treatment chemicals- Professional	
Use Descriptor	Sector of Use: SU22 Process Categories: PROC 1, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 13 Environmental Release Categories: ERC8f, ESVOC SpERC 8.22b.v1	
Scope of process	Covers the use of the substance for the treatment of water in open and closed systems.	

SECTION 2	OPERATIONAL CONDITIONS AND RIS MEASURES	K MANAGEMENT			
Section 2.1	Control of Worker Exposure				
Product Characteristics					
Physical form of product	Liquid, vapour pressure < 0.5 kPa at STP				
Concentration of the Substance in Mixture/Article	Covers use of substance/product up to 10 differently).,	00% (unless stated			
Frequency and Duration of	Use				
	8 hours (unless stated differently).				
Other Operational Conditions affecting Exposure					
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.					
Contributing Scenarios	Contributing Scenarios Risk Management Measures				
Drum/batch transfersDedicated facilityPROC8b	No other specific measures identified.				
General exposures (closed systems)PROC3	No other specific measures identified.				
General exposures (open systems)PROC4	No other specific measures identified.				
Pouring from small containersPROC13	No other specific measures identified.				
Equipment maintenance- PROC8a	No other specific measures identified.				
Storage.PROC1	Store substance within a closed system.				
Section 2.2	Control of Environmental Exposure				
Substance is complex UVCB	Substance is complex UVCB.				
Predominantly hydrophobic.					
Amounts Used					
Fraction of EU tonnage used	Fraction of EU tonnage used in region: 0,1				
Regional use tonnage (tonne	s/year):	130			
	Fraction of Regional tonnage used locally:				
Annual site tonnage (tonnes/year): 1,5		1,5			

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

Maximum daily site tonnage (kg/day):	4,0	
Frequency and Duration of Use	4,0	
Continuous release.		
Emission Days (days/year):	365	
Environmental factors not influenced by risk management	1000	
Local freshwater dilution factor:	10	
Local marine water dilution factor:	100	
Other Operational Conditions affecting Environmental Exposure		
Release fraction to air from process (initial release prior to RMM):	1,0E-02	
Release fraction to wastewater from process (initial release prior to	0,99	
RMM):	0,00	
Release fraction to soil from process (initial release prior to RMM):	0	
Technical conditions and measures at process level (source) to pr	event release	
Common practices vary across sites thus conservative process re-		
lease estimates used.		
Technical onsite conditions and measures to reduce or limit disch	arges, air emis-	
sions and releases to soil		
Risk from environmental exposure is driven by soil.		
If discharging to domestic sewage treatment plant, no secondary		
wastewater treatment required.		
Treat air emission to provide a typical removal efficiency of (%)	0	
Treat onsite wastewater (prior to receiving water discharge) to provide	64,3	
the required removal efficiency of >= (%)	_	
If discharging to domestic sewage treatment plant, no secondary	0	
wastewater treatment required.		
Organisational measures to prevent/limit release from site		
Do not apply industrial sludge to natural soils.		
Sludge should be incinerated, contained or reclaimed.		
Conditions and Measures related to municipal sewage treatment p	lant	
Estimated substance removal from wastewater via domestic sewage	94,6	
treatment (%)	04,0	
Total efficiency of removal from wastewater after onsite and offsite	94,6	
(domestic treatment plant) RMMs (%)	0 .,0	
Maximum allowable site tonnage (MSafe) based on release following	26	
total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste fo	r disposal	
External treatment and disposal of waste should comply with applicable regulations.	local and/or regional	
Conditions and measures related to external recovery of waste		
External recovery and recycling of waste should comply with applicable	local and/or regional	
regulations.	Č	

	SECTION 3	EXPOSURE ESTIMATION
	Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001116	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Functional Fluids - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: PC16, PC17 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.13c.v1
Scope of process	Use of sealed items containing functional fluids e.g. transfer oils, hydraulic fluids, refrigerants.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Consumer Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 Pa	
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%): 100 %	
Amounts Used		
Unless stated otherwise.		
for each use event, covers amount up to (g):		2.200
covers skin contact area (cm2):		468
Frequency and Duration o	f Use	
Unless stated otherwise.		
Covers use up to (days/year):		4
covers use up to (times/day of use):		1
Exposure (hours/event): 0		0,17
Other Operational Condition	ons affecting Exposure	

Unless stated otherwise.

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Heat transfer fluids Liquids.	Covers concentrations up to 100 %	
	covers use up to 4 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 468,00 cm2	
	For each use event, covers amount up to 2.200 g	
	Covers use in a one car garage (34 m3) under typical ventilation.	
	Covers use in room size of 34 m3	
	Covers exposure up to 0,17 hours/event	
Hydraulic fluids Liquids.	Covers concentrations up to 100 %	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

covers use up to 4 day/year
Covers use up to 1 times/day of use
covers skin contact area up to (cm2): 468,00 cm2
For each use event, covers amount up to 2.200 g
Covers use in a one car garage (34 m3) under typical ventila-
tion.
Covers use in room size of 34 m3
Covers exposure up to 0,17 hours/event

Section 2.2 Control of Environmental Exposure		
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	in region:	0,1
Regional use tonnage (tonne	s/year):	3,0
Fraction of Regional tonnage	used locally:	5,0E-04
Annual site tonnage (tonnes/	year):	1,5E-03
Maximum daily site tonnage (kg/day):	4,1E-03
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year):		365
Environmental factors not i	nfluenced by risk management	
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
Other Operational Conditio	ns affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):		5,0E-02
Release fraction to wastewater from process (initial release prior to RMM):		2,5E-02
Release fraction to soil from process (initial release prior to RMM):		2,5E-02
Conditions and Measures re	elated to municipal sewage treatment p	lant
Risk from environmental expo	osure is driven by freshwater.	
Estimated substance removal from wastewater via domestic sewage treatment (%)		94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		1,1
Assumed domestic sewage treatment plant flow (m3/d)		2,0E+03
Conditions and Measures r	elated to external treatment of waste fo	r disposal
Estara al transferant and diama.	والمامون المرسوط والمناس والمرسوم الماري والمرسوط والمرسوط والمرسوط	local and/arranian

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3 EXPOSURE ESTIMATION		
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise		
indicated		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

Exposure occitatio oc	7110411101
30000001115	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as a fuel - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: PC13 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.12c.v1
Scope of process	Covers consumer uses in liquid fuels.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES			
Section 2.1	Control of Consumer Exposure			
Product Characteristics				
Physical form of product	Liquid, vapour pressure > 10 Pa			
Concentration of the Substance in Mixture/Article	Unless stated otherwise.			
	Covers concentration up to (%): 100 %			
Amounts Used	Amounts Used			
Unless stated otherwise.				
for each use event, covers amount up to (g):		37.500		
covers skin contact area (cm2):		420		
Frequency and Duration of Use				
Unless stated otherwise.Cov	ers use up to (days/year):			
Covers use up to (days/year):		365		
covers use up to (times/day of use):		1		
Exposure (hours/event): 2		2		
Other Operational Conditions affecting Exposure				

Unless stated otherwise.

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES Covers concentrations up to 100 %	
Fuels Liquid: Automotive Refuelling.		
	covers use up to 52 day/year	
	covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 210,00 cm2	
	For each use event, covers amount up to 37.500 g	
	Covers outdoor use.	
	Covers use in room size of 100 m3	
	Covers exposure up to 0,05 hours/event	
Fuels Liquid Scooter Refuelling.	Covers concentrations up to 100 %	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	covers use up to 52 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 210 cm2
	For each use event, covers amount up to 3.750 g
	Covers outdoor use.
	Covers use in room size of 100 m3
E 1 1: :1 0 1	Covers exposure up to 0,03 hours/event
Fuels Liquid, Garden Equipment - Use.	Covers concentrations up to 100 %
	covers use up to 26 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 750 g
	Covers outdoor use.
	Covers use in room size of 100 m3
	Covers exposure up to 2,00 hours/event
Fuels Liquid: Garden Equipment - Refuelling.	Covers concentrations up to 100 %
	covers use up to 26 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 420,00 cm2
	For each use event, covers amount up to 750 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0,03 hours/event
Fuels Liquid: Home space heater fuel.	Covers concentrations up to 100 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 210,00 cm2
	For each use event, covers amount up to 3.000 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,03 hours/event
Fuels Liquid: Lamp oil.	Covers concentrations up to 100 %
	covers use up to 52 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 210,00 cm2
	For each use event, covers amount up to 100 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,01 hours/event
	1 COTOLO OXPOGUIO UP TO 0,01 HOULD/OVELLE

Section 2.2	Control of Environmental Exposur	е
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used in region: 0,1		
Regional use tonnage (tonnes/year): 2,4E+03		2,4E+03
Fraction of Regional tonnage used locally: 5,0E-04		5,0E-04

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Annual site tonnage (tonnes/year):	1,2	
Maximum daily site tonnage (kg/day): 3,2		
Frequency and Duration of Use		
Continuous release.		
Emission Days (days/year):	365	
Environmental factors not influenced by risk management		
Local freshwater dilution factor:	10	
Local marine water dilution factor:	100	
Other Operational Conditions affecting Environmental Exposure		
Release fraction to air from process (initial release prior to RMM):	1,0E-04	
Release fraction to wastewater from process (initial release prior to	1,0E-05	
RMM):		
Release fraction to soil from process (initial release prior to RMM):	1,0E-05	
Conditions and Measures related to municipal sewage treatment p	lant	
Risk from environmental exposure is driven by freshwater.		
Estimated substance removal from wastewater via domestic sewage	94,6	
treatment (%)		
Maximum allowable site tonnage (MSafe) based on release following	8,4E+02	
total wastewater treatment removal (kg/d)		
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03	
Conditions and Measures related to external treatment of waste for disposal		
Combustion emissions limited by required exhaust emission controls.		
Waste combustion emissions considered in regional exposure assessment.		
Conditions and measures related to external recovery of waste		
This substance is consumed during use and no waste of substance is generated.		

SECTION 3	EXPOSURE ESTIMATION
Section 3.1 - Health	

The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001114	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Agrochemicals uses - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: , PC27 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.11b.v1
Scope of process	Covers the consumer use in agrochemicals in liquid and solid forms.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Consumer Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 Pa	
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%): 5	0 %
Amounts Used		
Unless stated otherwise.		
covers skin contact area (cm2):		857,5
Frequency and Duration of	of Use	
Unless stated otherwise.		
Covers use up to (days/year):		365
covers use up to (times/day	of use):	1
Exposure (hours/event):		4
Other Operational Conditi	one affecting Exposure	

Other Operational Conditions affecting Exposure

Unless stated otherwise.

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT	
	MEASURES	
Fertilizers Lawn and garden preparations.	Covers concentrations up to 15 %	
	covers use up to 365 day/year	
	covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 857,50 cm2	
	Covers exposure up to 4 hours/event	
	For each use event, assumes swallowed amount of 0,3 g	
	Covers exposure up to 4 hours/event	
Plant protection products	Covers concentrations up to 15 %	
	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

covers skin contact area up to (cm2): 857,50 cm2
For each use event, assumes swallowed amount of 0,3 g
Covers exposure up to 4 hours/event

Section 2.2 Control of Environmental Exposure		
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	in region:	0,1
Regional use tonnage (tonne		10
Fraction of Regional tonnage		2,0E-03
Annual site tonnage (tonnes/		2,0E-02
Maximum daily site tonnage (5,5E-02
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year):		365
	nfluenced by risk management	1
Local freshwater dilution factor:		10
Local marine water dilution fa		100
	ns affecting Environmental Exposure	
	rocess (initial release prior to RMM):	0,9
Release fraction to wastewater from process (initial release prior to RMM):		1,0E-02
Release fraction to soil from process (initial release prior to RMM):		9,0E-02
	elated to municipal sewage treatment p	plant
Risk from environmental expo		
Estimated substance removal from wastewater via domestic sewage treatment (%)		94,6
Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)		1,4E+01
Assumed domestic sewage treatment plant flow (m3/d)		2,0E+03
Conditions and Measures related to external treatment of waste for disposal		
External treatment and disposal of waste should comply with applicable local and/or regional regulations.		

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise		
indicated.		

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE
	EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001113	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Lubricants - Consumer High Environmental Release
Use Descriptor	Sector of Use: SU21 Product Categories: PC1, PC24, PC31 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.6e.v1
Scope of process	Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Consumer Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 Pa	
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%): 100 %	
Amounts Used		
Unless stated otherwise.		
for each use event, covers amount up to (g): 6.390		6.390
covers skin contact area (cm2): 468		468
Frequency and Duration of Use		
Unless stated otherwise.		
Covers use up to (days/year):		365
covers use up to (times/day of use):		1
Exposure (hours/event): 8		8
Other Operational Conditions affecting Exposure		
The large and a first and the second		

Unless stated otherwise.

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Adhesives, sealants Glues, hobby use.	Covers concentrations up to 30 %
	covers use up to 365 day/year
	covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,73 cm2
	For each use event, covers amount up to 9 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers exposure up to 4,00 hours/event	
Adhesives, sealants Glues	Covers concentrations up to 30 %	
DIY-use (carpet glue, tile	Covere concernment up to 50 %	
glue, wood parquet glue).		
g.u.o,oou pun quot g.u.o/.	covers use up to 1 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 110,00 cm2	
	For each use event, covers amount up to 6.390 g	
	Covers use under typical household ventilation.	
_	Covers use in room size of 20 m3	
Adhesives, sealants Glue	Covers exposure up to 6,00 hours/event Covers concentrations up to 30 %	
from spray.	Covers concentrations up to 30 %	
nom spray.	covers use up to 6 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 85,05 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 4,00 hours/event	
Adhesives, sealants Seal-	Covers concentrations up to 30 %	
ants.	Covers concentrations up to 50 %	
ants.	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 75 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 1,00 hours/event	
Lubricante anagana na	Avoid using when windows closed.	
Lubricants, greases, re- lease products Liquids.	Covers concentrations up to 100 %	
	covers use up to 4 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 468,00 cm2	
	For each use event, covers amount up to 2.200 g	
	Covers use in a one car garage (34 m3) under typical ventila-	
	tion.	
_	Covers use in room size of 34 m3	
Lubricants, greases, re- lease products Pastes.	Covers use in room size of 34 m3	
Lubricants, greases, release products Pastes.	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 %	
	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year	
	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use	
	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use covers skin contact area up to (cm2): 468,00 cm2	
	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use covers skin contact area up to (cm2): 468,00 cm2 For each use event, covers amount up to 34 g	
lease products Pastes.	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use covers skin contact area up to (cm2): 468,00 cm2 For each use event, covers amount up to 34 g Covers exposure up to 4 hours/event	
lease products Pastes. Lubricants, greases, re-	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use covers skin contact area up to (cm2): 468,00 cm2 For each use event, covers amount up to 34 g	
lease products Pastes.	Covers use in room size of 34 m3 Covers exposure up to 0,17 hours/event Covers concentrations up to 20 % covers use up to 10 day/year Covers use up to 1 times/day of use covers skin contact area up to (cm2): 468,00 cm2 For each use event, covers amount up to 34 g Covers exposure up to 4 hours/event	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 73 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,17 hours/event
Polishes and wax blends	Covers concentrations up to 50 %
Polishes, wax / cream	
(floor, furniture, shoes).	
	covers use up to 29 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 142 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,23 hours/event
Polishes and wax blends Polishes, spray (furniture,	Covers concentrations up to 50 %
shoes).	
,	covers use up to 8 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event

Section 2.2	Control of Environmental Exposure		
Substance is complex UVCB.			
Predominantly hydrophobic.			
Amounts Used			
Fraction of EU tonnage used		0,1	
Regional use tonnage (tonnes	s/year):	50	
Fraction of Regional tonnage		5,0E-04	
Annual site tonnage (tonnes/y	/ear):	2,5E-02	
Maximum daily site tonnage (6,8E-02	
Frequency and Duration of	Use		
Continuous release.			
Emission Days (days/year):		365	
Environmental factors not i	Environmental factors not influenced by risk management		
Local freshwater dilution factor: 1		10	
Local marine water dilution factor: 100		100	
Other Operational Conditions affecting Environmental Exposure			
Release fraction to air from p	rocess (initial release prior to RMM):	0,15	
Release fraction to wastewater from process (initial release prior to RMM): 5,0E-02		5,0E-02	
Release fraction to soil from process (initial release prior to RMM):		5,0E-02	
Conditions and Measures related to municipal sewage treatment plant			
Risk from environmental exposure is driven by freshwater.			
Estimated substance removal from wastewater via domestic sewage treatment (%)		94,6	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

SDS Number: Date of last issue: 28.03.2024 Version Revision Date:

Print Date 03.01.2025 8.0 27.12.2024 800001007476

Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	17
Assumed domestic sewage treatment plant flow (m3/d)	2,0E-03

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.		

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management	
Measures/Operational Conditions outlined in Section 2 are implemented.	

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001112	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Lubricants - Consumer Low Environmental Release
Use Descriptor	Sector of Use: SU21 Product Categories: PC1, PC24, PC31 Environmental Release Categories: ERC9a, ERC9b, ESVOC SpERC 9.6d.v1
Scope of process	Covers the consumer use of formulated lubricants in closed and open systems including transfer operations, application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Consumer Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 Pa	
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%): 1	100 %
Amounts Used		
Unless stated otherwise.		
for each use event, covers a	mount up to (g):	6.390
covers skin contact area (cm2):		468
Frequency and Duration of	Use	
Unless stated otherwise.		
Covers use up to (days/year):		365
covers use up to (times/day of use):		1
Exposure (hours/event): 8		8
Other Operational Condition	ons affecting Exposure	
I I allowed a Control of Charles Pro-		

Unless stated otherwise.

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Adhesives, sealants Glues, hobby use.	Covers concentrations up to 30 %
	covers use up to 365 day/year
	covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,73 cm2
	For each use event, covers amount up to 9 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers exposure up to 4,00 hours/event	
Adhesives, sealants Glues	Covers concentrations up to 30 %	
DIY-use (carpet glue, tile	Covere contestmations up to 30 %	
glue, wood parquet glue).		
g.u.s,sea pandast g.u.s/.	covers use up to 1 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 110,00 cm2	
	For each use event, covers amount up to 6.390 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 6,00 hours/event	
Adhesives, sealants Glue	Covers concentrations up to 30 %	
from spray.	Covers concentrations up to 30 %	
nom spray.	covers use up to 6 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 85,05 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
Adhasina asalanta Casl	Covers exposure up to 4,00 hours/event	
Adhesives, sealants Seal-	Covers concentrations up to 30 %	
ants.	covers use up to 205 doubles	
	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 75 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 1,00 hours/event	
	Avoid using when windows closed.	
Lubricants, greases, release products Liquids.	Covers concentrations up to 100 %	
	covers use up to 4 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 468,00 cm2	
	For each use event, covers amount up to 2.200 g	
	Covers use in a one car garage (34 m3) under typical ventila-	
	tion.	
	Covers use in room size of 34 m3	
	Covers exposure up to 0,17 hours/event	
Lubricants, greases, re-	Covers concentrations up to 20 %	
lease products Pastes.	<u>'</u>	
	covers use up to 10 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 468,00 cm2	
	For each use event, covers amount up to 34 g	
	Covers exposure up to 4 hours/event	
Lubricants, greases, release products Sprays.	Covers concentrations up to 50 %	
	covers use up to 6 day/year	
	Covers use up to 1 times/day of use	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 73 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,17 hours/event
Polishes and wax blends	Covers concentrations up to 50 %
Polishes, wax / cream	·
(floor, furniture, shoes).	
	covers use up to 29 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 142 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,23 hours/event
Polishes and wax blends	Covers concentrations up to 50 %
Polishes, spray (furniture,	·
shoes).	
	covers use up to 8 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event

Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		
Fraction of EU tonnage used	in region:	0,1
Regional use tonnage (tonne	s/year):	50
Fraction of Regional tonnage	used locally:	5,0E-04
Annual site tonnage (tonnes/	year):	2,5E-02
Maximum daily site tonnage (kg/day):	6,8E-02
Frequency and Duration of	Use	
Continuous release.		
Emission Days (days/year):		365
Environmental factors not influenced by risk management		
Local freshwater dilution factor: 10		10
Local marine water dilution factor:		100
Other Operational Conditions affecting Environmental Exposure		
Release fraction to air from process (initial release prior to RMM):		1,0E-02
Release fraction to wastewater from process (initial release prior to RMM):		1,0E-02
Release fraction to soil from process (initial release prior to RMM): 1,0E-0		1,0E-02
Conditions and Measures related to municipal sewage treatment plant		
Risk from environmental exposure is driven by freshwater.		
Estimated substance removal from wastewater via domestic sewage treatment (%)		94,6

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Maximum allowable site tonnage (MSafe) based on release following total wastewater treatment removal (kg/d)	18
Assumed domestic sewage treatment plant flow (m3/d)	2,0E+03

Conditions and Measures related to external treatment of waste for disposal

External treatment and disposal of waste should comply with applicable local and/or regional regulations.

Conditions and measures related to external recovery of waste

External recovery and recycling of waste should comply with applicable local and/or regional regulations.

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has be indicated.	The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise	

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management	

Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.

Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001111	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Cleaning Agents - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: PC3, PC4, PC8 (excipient only), PC9a, PC24, PC35, Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.4c.v1
Scope of process	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.

SECTION 2	OPERATIONAL CONDITIONS A	AND RISK MANAGEMENT
Section 2.1	Control of Consumer Exposur	e
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 kPa	a at STP
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%):	100 %
Amounts Used		
Unless stated otherwise.		
for each use event, covers a	mount up to (g):	13.800
covers skin contact area (cm2):		857,5
Frequency and Duration o	f Use	
Unless stated otherwise.		
Covers use up to (days/year):		365
covers use up to (times/day of use):		4
Exposure (hours/event):		8
Other Operational Condition	ons affecting Exposure	·
Unless stated otherwise.		

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Air care products Air care, instant action (aerosol sprays).	Covers concentrations up to 50 %
	covers use up to 365 day/year
	covers use up to 4 times/day of use
	For each use event, covers amount up to 0,1 g
	Covers use under typical household ventilation.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers use in room size of 20 m3
	Covers exposure up to 0,25 hours/event
Air care products Air care,	Covers concentrations up to 50 %
nstant action (aerosol	
sprays). pesticides (excipi-	
ent only).	
one only).	covers use up to 365 day/year
	Covers use up to 4 times/day of use
	For each use event, covers amount up to 5 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,25 hours/event
Air care products Air care,	Covers concentrations up to 10 %
continuous action (solid and liquid).	Covers concentrations up to 10 /0
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,70 cm2
	For each use event, covers amount up to 0,48 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 8,00 hours/event
Air care products Air care,	Covers concentrations up to 50 %
continuous action (solid and liquid). pesticides (excipient only).	
5 y).	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,70 cm2
	For each use event, covers amount up to 0,48 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 8,00 hours/event
Anti-Freeze and de-icing	Covers concentrations up to 1 %
products Washing car window.	Covers concentrations up to 1 70
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 0,5 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3
	Covers exposure up to 0,02 hours/event
Anti-Freeze and de-icing	Covers concentrations up to 10 %
products Pouring into radiator.	, and the second
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	COVERS SKIN CONTACT AREA UP to CONTACT. 420.00 CINZ
	covers skin contact area up to (cm2): 428,00 cm2 For each use event, covers amount up to 2.000 g

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	T.e.
	tion.
	Covers use in room size of 34 m3
A .: E	Covers exposure up to 0,17 hours/event
Anti-Freeze and de-icing products Lock de-icer.	Covers concentrations up to 50 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 214,40 cm2
	For each use event, covers amount up to 4 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0,25 hours/event
Biocidal products (e.g. Dis- infectants, pest control) (excipient only). Laundry	Covers concentrations up to 5 %
and dish washing products.	2005 dev/vee
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 15 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
Biocidal products (e.g. Dis-	Covers exposure up to 0,50 hours/event Covers concentrations up to 5 %
infectants, pest control) (excipient only). Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners).	
	covers use up to 128 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 27 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event
Biocidal products (e.g. Dis- infectants, pest control) (excipient only). Cleaners, trigger sprays (all purpose cleaners,sanitary products, glass cleaners).	Covers concentrations up to 15 %
-	covers use up to 128 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,00 cm2
	For each use event, covers amount up to 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers use in room size or 20 ms

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers exposure up to 0,17 hours/event
Coatings and paints, thin-	Covers concentrations up to 1,5 %
ners, paint removers Wa-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
terborne latex wall paint.	
•	Covers use under typical household ventilation.
	For each use event, covers amount up to 2.760 g
	covers skin contact area up to (cm2): 428,75 cm2
	Covers use up to 1 times/day of use
	Covers use in room size of 20 m3
	Covers exposure up to 2,2 hours/event
Coatings and paints, thin-	Covers concentrations up to 27,5 %
ners, paint removers Sol-	
vent rich, high solid, water	
borne paint.	
	covers use up to 6 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 744 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,2 hours/event
Coatings and paints, thin-	Covers concentrations up to 50 %
ners, paint removers Aerosol spray can.	
. ,	covers use up to 2 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 215 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3
	Covers exposure up to 0,33 hours/event
Coatings and paints, thin-	Covers concentrations up to 50 %
ners, paint removers Re-	
movers (paint-, glue-, wall	
paper-, sealant-remover).	
	covers use up to 3 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 491 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,00 hours/event
Lubricants, greases, re-	Covers concentrations up to 100 %
lease products Liquids.	
	covers use up to 4 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 468,00 cm2
	For each use event, covers amount up to 2.200 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers expecting up to 0.17 hours/event
Lubricante manage no	Covers exposure up to 0,17 hours/event
Lubricants, greases, release products Pastes.	Covers concentrations up to 20 %
	covers use up to 10 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 468,00 cm2
	For each use event, covers amount up to 34 g
	Covers exposure up to 4,00 hours/event
Lubricants, greases, release products Sprays.	Covers concentrations up to 50 %
	covers use up to 6 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 73 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,17 hours/event
Washing and cleaning	Covers concentrations up to 5 %
products (including solvent based products) Laundry and dish washing products.	
<u> </u>	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 15 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,50 hours/event
Washing and cleaning products (including solvent based products) Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners).	Covers concentrations up to 5 %
	covers use up to 128 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 27 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event
Washing and cleaning products (including solvent based products) Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners).	Covers concentrations up to 15 %
	covers use up to 128 day/year
	Covers use up to 1 times/day of use

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

regulations.

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	covers skin contact area up to (cm2): 428,00 cm2
	For each use event, assumes swallowed amount of 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,17 hours/event
Welding and soldering products (with flux coatings or flux cores.), flux products	Covers concentrations up to 20 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 12 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,00 hours/event

•	ontrol of Environmental Exposure	1
Substance is complex UVCB.		
Predominantly hydrophobic.		
Amounts Used		1
Fraction of EU tonnage used in		0,1
Regional use tonnage (tonnes/y		1,2E-02
Fraction of Regional tonnage us		5,0E-04
Annual site tonnage (tonnes/yea		6,2E-06
Maximum daily site tonnage (kg		1,7E-05
Frequency and Duration of Us	se .	_
Continuous release.		
Emission Days (days/year):		365
Environmental factors not infl	uenced by risk management	_
Local freshwater dilution factor:		10
Local marine water dilution factor:		100
•	affecting Environmental Exposure	_
Release fraction to air from process (initial release prior to RMM): 0,95		·
Release fraction to wastewater from process (initial release prior to		2,5E-02
RMM):		
•	cess (initial release prior to RMM):	2,5E-02
	ted to municipal sewage treatment p	olant
Risk from environmental exposu	•	
Estimated substance removal from treatment (%)	om wastewater via domestic sewage	94,6
	e (MSafe) based on release following	4,0E-03
total wastewater treatment remo		1,02 00
Assumed domestic sewage treatment plant flow (m3/d)		2.0E+03
	ited to external treatment of waste for	,
	of waste should comply with applicable	
Conditions and measures rela	ited to external recovery of waste	
	of waste should comply with applicable	e local and/or regional

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

SECTION 3	EXPOSURE ESTIMATION

Section 3.1 - Health

The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4 GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Exposure Scenario - Consumer

30000001110	
SECTION 1	EXPOSURE SCENARIO TITLE
Title	Uses in Coatings - Consumer
Use Descriptor	Sector of Use: SU21 Product Categories: PC1, PC4, PC8 (excipient only), PC9a, PC9b, PC9c, PC15, PC18, PC23, PC24, PC31, PC34 Environmental Release Categories: ERC8a, ERC8d, ESVOC SpERC 8.3c.v1
Scope of process	Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES	
Section 2.1	Control of Consumer Exposure	
Product Characteristics		
Physical form of product	Liquid, vapour pressure > 10 kPa at STP	
Concentration of the Substance in Mixture/Article	Unless stated otherwise.	
	Covers concentration up to (%): 100 %	
Amounts Used		
Unless stated otherwise.		
for each use event, covers amount up to (g):		13.800
covers skin contact area (cm2):		857,5
Frequency and Duration o	f Use	
Unless stated otherwise.		
Covers use up to (days/year):		365
covers use up to (times/day of use):		1
Exposure (hours/event):		6
Other Operational Conditi	ons affecting Exposure	•
Unless stated otherwise.	<u> </u>	

Covers use at ambient temperatures.

Covers use in room size of 20m3

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Adhesives, sealants Glues, hobby use.	Covers concentrations up to 30 %
	covers use up to 365 day/year
	covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,73 cm2
	For each use event, covers amount up to 9 g
	Covers use in room size of 20 m3

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers exposure up to 4 hours/event	
	Covers use under typical household ventilation.	
Adhesives, sealants Glues	Covers concentrations up to 30 %	
DIY-use (carpet glue, tile	Covere concentrations up to co /s	
glue, wood parquet glue).		
giae, weed parquet giae).	covers use up to 1 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 110,00 cm2	
	For each use event, covers amount up to 6.390 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
Adhasiyas asalanta Clus	Covers exposure up to 6,00 hours/event Covers concentrations up to 30 %	
Adhesives, sealants Glue	Covers concentrations up to 30 %	
from spray.	covers use up to 6 day/year	
	covers use up to 6 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 85,05 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 4,00 hours/event	
Adhesives, sealants Sealants.	Covers concentrations up to 30 %	
	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 35,73 cm2	
	For each use event, covers amount up to 75 g	
	Covers use under typical household ventilation.	
	Covers use in room size of 20 m3	
	Covers exposure up to 1,00 hours/event	
	Avoid using when windows closed.	
Anti-Freeze and de-icing products Washing car window.	Covers concentrations up to 1 %	
	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	
	For each use event, covers amount up to 0,5 g	
	Covers use in a one car garage (34 m3) under typical ventila-	
	tion.	
	Covers use in room size of 34 m3	
	Covers exposure up to 0,02 hours/event	
Anti-Freeze and de-icing products Pouring into radiator.	Covers concentrations up to 10 %	
	covers use up to 365 day/year	
	Covers use up to 1 times/day of use	
	covers skin contact area up to (cm2): 428,00 cm2	
	For each use event, covers amount up to 2.000 g	
	Covers use in a one car garage (34 m3) under typical ventila-	
	tion.	
	Covers use in room size of 34 m3	

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	Covers exposure up to 0.17 hours/event
Anti-Freeze and de-icing	Covers exposure up to 0,17 hours/event Covers concentrations up to 50 %
products Lock de-icer.	Covers concentrations up to 50 %
products Lock de-icer.	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 214,40 cm2
	For each use event, covers amount up to 4 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3
Distribution Late (s. Dis	Covers exposure up to 0,25 hours/event
Biocidal products (e.g. Dis- infectants, pest control) (excipient only). Laundry and dish washing products.	Covers concentrations up to 5 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 15 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,50 hours/event
Biocidal products (e.g. Dis- infectants, pest control) (excipient only). Cleaners, liquids (all purpose clean- ers, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners).	Covers concentrations up to 5 %
	covers use up to 128 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 27 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
B: 11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Covers exposure up to 0,33 hours/event
Biocidal products (e.g. Dis- infectants, pest control) (excipient only). Cleaners, trigger sprays (all purpose cleaners,sanitary products, glass cleaners).	Covers concentrations up to 15 %
<u> </u>	covers use up to 128 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,00 cm2
	For each use event, covers amount up to 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
Coatings and naints thin	Covers exposure up to 0,17 hours/event
Coatings and paints, thin-	Covers concentrations up to 1,5 %

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

nore point removers Me	1
ners, paint removers Waterborne latex wall paint.	
terborne latex wall paint.	covers use up to 4 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 2.760 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,20 hours/event
Coatings and paints, thin-	Covers concentrations up to 27,5 %
ners, paint removers Solvent rich, high solid, water borne paint.	Covers concentrations up to 21,3 %
	covers use up to 6 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 744 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,20 hours/event
Coatings and paints, thin- ners, paint removers Aero- sol spray can.	Covers concentrations up to 50 %
	covers use up to 2 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 215 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0,33 hours/event
Coatings and paints, thin- ners, paint removers Re- movers (paint-, glue-, wall paper-, sealant-remover).	Covers concentrations up to 50 %
	covers use up to 3 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 491 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,00 hours/event
Fillers, Putties Fillers and putty.	Covers concentrations up to 2 %
	covers use up to 12 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 35,73 cm2
	For each use event, covers amount up to 85 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 4,00 hours/event
Fillers, Putties Plasters and	Covers concentrations up to 2 %

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

floor equalizers.	
	covers use up to 12 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 13.800 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,00 hours/event
Fillers, Putties Modelling clay.	Covers concentrations up to 1 %
,	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 254,40 cm2
	For each use event, assumes swallowed amount of 1 g
Finger paints	Covers concentrations up to 1,25 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 254,40 cm2
	For each use event, assumes swallowed amount of 1,35 g
Non-metal-surface treat- ment products Waterborne	Covers concentrations up to 1,5 %
latex wall paint.	covers use up to 4 day/year
	covers use up to 4 day/year Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 2.760 g
	Covers use under typical household ventilation. Covers use in room size of 20 m3
Non-metal-surface treat-	Covers exposure up to 2,20 hours/event
ment products Solvent rich, high solid, water borne paint.	Covers concentrations up to 27,5 %
	covers use up to 6 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 744 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,20 hours/event
Non-metal-surface treat- ment products Aerosol spray can.	Covers concentrations up to 50 %
. ,	covers use up to 2 day/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 215 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3
	Covers exposure up to 0,33 hours/event
	L Covers exposure up to 10.55 hours/eveni

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

ment products Removers	
(paint-, glue-, wall paper-,	
sealant-remover).	covers use up to 2 day/year
	covers use up to 3 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 491 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,00 hours/event
Ink and toners	Covers concentrations up to 10 %
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 71,40 cm2
	For each use event, covers amount up to 40 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 2,20 hours/event
Leather tanning, dye, finish-	Covers concentrations up to 50 %
ing, impregnation and care	
products Polishes, wax /	
cream (floor, furniture,	
shoes).	
	covers use up to 29 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 56 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,23 hours/event
Leather tanning, dye, finish-	Covers concentrations up to 50 %
ing, impregnation and care	,
products Polishes, spray	
(furniture, shoes).	
	covers use up to 8 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 56 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event
Lubricants, greases, re-	Covers concentrations up to 100 %
lease products Liquids.	Service controlling and to 100 /0
	covers use up to 4 day/year
	covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 468,00 cm2
	For each use event, covers amount up to 2.200 g
	Covers use in a one car garage (34 m3) under typical ventila-
	tion.
	Covers use in room size of 34 m3
	Covers exposure up to 0,17 hours/event
	Loovers exhospite ah to o''' Honra/eneur

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

	<u></u>
Lubricants, greases, re-	Covers concentrations up to 20 %
lease products Pastes.	
	covers use up to 10 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 468,00 cm2
	For each use event, covers amount up to 34 g
	Covers exposure up to 4 hours/event
Lubricants, greases, re-	Covers concentrations up to 50 %
lease products Sprays.	
	covers use up to 6 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 428,75 cm2
	For each use event, covers amount up to 73 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,17 hours/event
Polishes and wax blends	Covers concentrations up to 50 %
Polishes, wax / cream	
(floor, furniture, shoes).	
	covers use up to 29 day/year
	covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 142 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,23 hours/event
Polishes and wax blends	Covers concentrations up to 50 %
Polishes, spray (furniture,	
shoes).	
	covers use up to 8 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 430,00 cm2
	For each use event, covers amount up to 35 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 0,33 hours/event
Textile dyes, finishing and	Covers concentrations up to 10 %
impregnating products;	
including bleaches and	
other processing aids	
	covers use up to 365 day/year
	Covers use up to 1 times/day of use
	covers skin contact area up to (cm2): 857,50 cm2
	For each use event, covers amount up to 115 g
	Covers use under typical household ventilation.
	Covers use in room size of 20 m3
	Covers exposure up to 1,00 hours/event

Section 2.2	Control of Environmental Exposure	
Substance is complex UVCB.		
Predominantly hydrophobic.		

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Amounts Used	
Fraction of EU tonnage used in region:	0,1
Regional use tonnage (tonnes/year):	5,1
Fraction of Regional tonnage used locally:	5,0E-04
Annual site tonnage (tonnes/year):	2,6E-03
Maximum daily site tonnage (kg/day):	7,0E-03
Frequency and Duration of Use	
Continuous release.	
Emission Days (days/year):	365
Environmental factors not influenced by risk management	
Local freshwater dilution factor:	10
Local marine water dilution factor:	100
Other Operational Conditions affecting Environmental Exposure	
Release fraction to air from process (initial release prior to RMM):	0,985
Release fraction to wastewater from process (initial release prior to	1,0E-02
RMM):	
Release fraction to soil from process (initial release prior to RMM):	5,0E-03
Conditions and Measures related to municipal sewage treatment p	lant
Risk from environmental exposure is driven by freshwater.	
Estimated substance removal from wastewater via domestic sewage	94,6
treatment (%)	
Maximum allowable site tonnage (MSafe) based on release following	1,8
total wastewater treatment removal (kg/d)	
Assumed domestic sewage treatment plant flow (m3/d)	2.000
Conditions and Measures related to external treatment of waste fo	
External treatment and disposal of waste should comply with applicable	local and/or region-
al regulations.	
Conditions and measures related to external recovery of waste	
External recovery and recycling of waste should comply with applicable local and/or regional	
regulations.	

SECTION 3	EXPOSURE ESTIMATION	
Section 3.1 - Health		
The ECETOC TRA tool has b	een used to estimate consumer exposures unless otherwise	

The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.

Section 3.2 - Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO	
Section 4.1 - Health		
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management		
Measures/Operational Conditions outlined in Section 2 are implemented.		
Where other Risk Management Measures/Operational Conditions are adopted, then users		

should ensure that risks are managed to at least equivalent levels.

According to EC No 1907/2006 as amended as at the date of this SDS

ShellSol A150

Version Revision Date: SDS Number: Date of last issue: 28.03.2024

8.0 27.12.2024 800001007476 Print Date 03.01.2025

Section 4.2 - Environment

Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org).