According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

SECTION 1. IDENTIFICATION

Product name : ShellSol W HT

Product code : Q5119

CAS-No. : 64742-89-8

Manufacturer or supplier's details

Company : Shell Chemical LP

PO Box 576

HOUSTON TX 77001

USA

SDS Request : 1-800-240-6737

Customer Service : 1-855-697-4355

Emergency telephone number

Chemtrec Domestic (24 hr) : 1-800-424-9300

Chemtrec International (24

hr)

: 1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Industrial Solvent.

Restrictions on use : This product must not be used in applications other than the

above without first seeking the advice of the supplier.

Other information : SHELLSOL is a registered trademark of Shell trademark

Management BV.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 2

Aspiration hazard : Category 1

Skin irritation : Category 2

Specific target organ toxicity

- single exposure

Category 3 (Narcotic effects)

Reproductive toxicity : Category 2

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Specific target organ toxicity

- repeated exposure

Category 2 (Central nervous system, Peripheral nervous sys-

tem)

Long-term (chronic) aquatic

hazard

Category 2

GHS label elements

Hazard pictograms :









Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

H225 Highly flammable liquid and vapour.

HEALTH HAZARDS:

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs (Central nervous system, Peripheral nervous system) through prolonged or repeated ex-

posure.

ENVIRONMENTAL HAZARDS:

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/ sparks/ open flames/ hot surfaces.

No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting equip-

ment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

P273 Avoid release to the environment.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P370 + P378 In case of fire: Use appropriate media to extinguish

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/ doctor.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

 Version
 Revision Date:
 SDS Number:
 Print Date: 12/01/2023

 25.1
 11/24/2023
 800001033975
 Date of last issue: 08/05/2022

P331 Do NOT induce vomiting.

P302 + P352 IF ON SKIN: Wash with plenty of water and soap. P332 + P313 If skin irritation occurs: Get medical advice/ attention

P362 + P364 Take off contaminated clothing and wash it before reuse.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/ doctor if you feel unwell. P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P235 Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

Other hazards which do not result in classification

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.

Vapours may be irritating to the eye.

Repeated exposure may cause skin dryness or cracking.

The classification of this material is based on OSHA HCS 2012 criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	Synonyms	CAS-No.	Concentration (% w/w)
Solvent naphtha (pe-	Solvent naph-	64742-89-8	< 100
troleum), light aliph.	tha (petrole-		
	um), light aliph.		

Further information

Contains:

Chemical name	Identification number	Concentration (% w/w)
Heptane	142-82-5	>=15 - <=30
Cyclohexane	110-82-7	>=0.3 - <=1.5
n-Hexane	110-54-3	>=0 - <=0.02

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

SECTION 4. FIRST-AID MEASURES

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

conditions.

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. Immediately flush skin with

large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical

facility for additional treatment.

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.

Most important symptoms and effects, both acute and delayed

Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.

Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters.

No specific hazards under normal use conditions.

Eye irritation signs and symptoms may include a burning sen-

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

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.

Peripheral nerve damage may be evidenced by impairment of motor function (incoordination, unsteady walk, or muscle weakness in the extremities, and/or loss of sensation in the

arms and legs).

Defatting dermatitis signs and symptoms may include a burn-

ing sensation and/or a dried/cracked appearance.

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

appropriate personal protective equipment according to the

incident, injury and surroundings.

Indication of any immediate medical attention and special treatment needed

Call a doctor or poison control center for guidance.

Potential for chemical pneumonitis.

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

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.

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.

Specific extinguishing meth-

ods

Standard procedure for chemical fires.

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

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).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

 Version
 Revision Date:
 SDS Number:
 Print Date: 12/01/2023

 25.1
 11/24/2023
 800001033975
 Date of last issue: 08/05/2022

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

Methods and materials for containment and cleaning up

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.

If contamination of site occurs remediation may require specialist advice.

Additional advice

: 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.

U.S. regulations may require reporting releases of this material to the environment which exceed the reportable quantity (refer to Section 15) to the National Response Center at (800) 424-8802.

Under Section 311 of the Clean Water Act (CWA) this material is considered an oil. As such, spills into surface waters must be reported to the National Response Center at (800) 424-8802.

This material is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not be reportable under CERCLA.

SECTION 7. HANDLING AND STORAGE

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 as-

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

sessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this

material.

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.

Avoidance of contact : Strong oxidising agents.

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.

Conditions for safe storage : 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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

 Version
 Revision Date:
 SDS Number:
 Print Date: 12/01/2023

 25.1
 11/24/2023
 800001033975
 Date of last issue: 08/05/2022

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.

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

near containers.

Specific use(s) : Not applicable

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

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), light aliph.	64742-89-8	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
Heptane	142-82-5	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
Heptane		TWA	400 ppm	ACGIH
Heptane		STEL	500 ppm	ACGIH
Cyclohexane	110-82-7	TWA	100 ppm ACGIH	
Cyclohexane		TWA	300 ppm 1,050 mg/m3	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam- pling time	Permissible concentration	Basis
Cyclohexane	110-82-7	1,2- Cyclohex- anediol	Urine	End of shift at end of work- week	50 mg/g creatinine	ACGIH BEI

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures

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. 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:

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.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Personal protective equipment

Respiratory protection

If engineering controls do not maintain airborne concentrations 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 apparatus.

Where air-filtering respirators are suitable, select an appropriate 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)].

Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

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: Nitrile rubber gloves. Incidental contact/Splash protection: PVC or neoprene 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.

Eye protection

: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection

Wear chemical resistant gloves/gauntlets and boots. Where risk of splashing, also wear an apron.

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

assessment deems it so.

Protective measures Personal protective equipment (PPE) should meet recom-

mended national standards. Check with PPE suppliers.

Thermal hazards : Not applicable

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

Launder contaminated clothing before re-use.

Do not ingest. If swallowed, then seek immediate medical

assistance.

Environmental exposure controls

General advice Local guidelines on emission limits for volatile substances

must be observed for the discharge of exhaust air containing

vapour.

Minimise release to the environment. An environmental assessment must be made to ensure compliance with local envi-

ronmental legislation.

Information on accidental release measures are to be found in

section 6.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Liquid.

Colour Light coloured

Odour Hydrocarbon

Odour Threshold Data not available

Not applicable pΗ

Melting point/freezing point Data not available

Boiling point/boiling range 93 - 116 °C / 199 - 241 °F

-7 - 0 °C / 19 - 32 °F Flash point

Evaporation rate 3.2

Method: ASTM D 3539, nBuAc=1

Flammability

Flammability (solid, gas) Not applicable

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / up- : 8.0 %(V)

per flammability limit

Lower explosion limit / : 0.8 %(V)

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Lower flammability limit

Vapour pressure

Data not available (50 °C / 122 °F)

Relative vapour density : 3.3

Relative density : 0.73 - 0.74 (15.6 °C / 60.1 °F)

Method: ASTM D4052

Density : Data not available

Solubility(ies)

Water solubility : Data not available

Partition coefficient: n-

octanol/water

Data not available

Auto-ignition temperature : 320 °C / 608 °F

Decomposition temperature : Data not available

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Data not available

Explosive properties : Not applicable

Oxidizing properties : Data not available

Surface tension : Data not available

Conductivity: < 100 pS/m, The conductivity of this material

makes it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive 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 antistatic additives can greatly influence the conductivity of a liq-

uid

Molecular weight : Data not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : The product does not pose any further reactivity hazards in

addition to those listed in the following sub-paragraph.

Chemical stability : No hazardous reaction is expected when handled and stored

according to provisions

Stable under normal conditions of use.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 800001033975 Date of last issue: 08/05/2022 11/24/2023

tions

Possibility of hazardous reac- : Reacts with strong oxidising agents.

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

In certain circumstances product can ignite due to static elec-

tricity.

Incompatible materials Strong oxidising agents.

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 degra-

dation.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment : Information given is based on product testing, and/or similar

products, and/or components.

Information on likely routes of exposure

Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Acute toxicity

Product:

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

Remarks: Low toxicity

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

Remarks: Low toxicity by inhalation.

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

Remarks: Low toxicity

Skin corrosion/irritation

Product:

Remarks: Causes skin irritation., Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Product:

Remarks: Not irritating to eye., Vapours may be irritating to the eye.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Respiratory or skin sensitisation

Product:

Remarks: Not a sensitiser.

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

Germ cell mutagenicity

Product:

Genotoxicity in vivo : Remarks: Not mutagenic.

Carcinogenicity

Product:

Remarks: Tumours produced in animals are not considered relevant to humans., Not a carcinogen., Based on available data, the classification criteria are not met.

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

Reproductive toxicity

Product:

Effects on fertility

Remarks: Suspected of damaging fertility or the unborn child., Causes foetotoxicity in animals at doses which are maternally toxic., Affects reproductive system in animals at doses which

produce other toxic effects.

STOT - single exposure

Product:

Remarks: May cause drowsiness and dizziness.

STOT - repeated exposure

Product:

Remarks: Central nervous system: repeated exposure affects the nervous system., Peripheral nervous system: causes peripheral neuropathy which can be potentiated by ketones., Kidney: caused kidney effects in male rats which are not considered relevant to humans

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Aspiration toxicity

Product:

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

Further information

Product:

Remarks: Classifications by other authorities under varying regulatory frameworks may exist.

SECTION 12. ECOLOGICAL INFORMATION

: Incomplete ecotoxicological data are available for this product. Basis for assessment

> The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.

Ecotoxicity

Product:

Toxicity to fish (Acute toxici-

Remarks: no data available ty)

Toxicity to daphnia and other :

aquatic invertebrates (Acute

toxicity)

Remarks: Toxic

 $LL/EL/IL50 > 1 \le 10 \text{ mg/l}$

Toxicity to algae (Acute tox-

icity)

Remarks: Harmful

LL/EL/IL50 >10 <= 100 mg/l

Toxicity to fish (Chronic tox-

icity)

Remarks: Data not available

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

Remarks: Data not available

Toxicity to microorganisms

(Acute toxicity)

Remarks: Data not available

Persistence and degradability

Product:

Biodegradability Remarks: Readily biodegradable.

Oxidises rapidly by photo-chemical reactions in air.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Has the potential to bioaccumulate.

Mobility in soil

Product:

Mobility Remarks: Floats on water.

If it enters soil, it will adsorb to soil particles and will not be

mobile.

Other adverse effects

Product:

Additional ecological infor-

mation

: Does not have ozone depletion potential.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues 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 meth-

ods 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 na-

tional requirements and must be complied with.

MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides tech-

nical 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 OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

 Version
 Revision Date:
 SDS Number:
 Print Date: 12/01/2023

 25.1
 11/24/2023
 800001033975
 Date of last issue: 08/05/2022

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

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

UN/ID/NA number : UN 1268

Proper shipping name : Petroleum distillates, n.o.s.

Class : 3
Packing group : II
Labels : 3
ERG Code : 128
Marine pollutant : no
Remarks : Oil

International Regulations

IATA-DGR

UN/ID No. : UN 1268

Proper shipping name : Petroleum distillates, n.o.s.

Class : 3
Packing group : II
Labels : 3

IMDG-Code

UN number : UN 1268

Proper shipping name : PETROLEUM DISTILLATES, N.O.S.

(Solvent naphtha (petroleum), light aliphatic)

Class : 3
Packing group : II
Labels : 3
Marine pollutant : yes

Maritime transport in bulk according to IMO instruments

Pollution category : Annex I

Ship type : 2

Product name : Solvent naphtha

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.

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.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ Calculated produ	
		(lbs)	(lbs)
Cyclohexane	110-82-7	1000	*

^{*:} Calculated RQ exceeds reasonably attainable upper limit., The components with RQs are given for information.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Aspiration hazard

Specific target organ toxicity (single or repeated exposure)

Reproductive toxicity
Skin corrosion or irritation

Clean Water Act

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Cyclohexane 110-82-7 1.5 %

US State Regulations

Pennsylvania Right To Know

Solvent naphtha (petroleum), light aliph. 64742-89-8 Heptane 142-82-5 Cyclohexane 110-82-7

California Prop. 65

WARNING: This product can expose you to chemicals including n-Hexane, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

Heptane 142-82-5 Cyclohexane 110-82-7

Other regulations:

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

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

AIIC : Listed

DSL : Listed

IECSC : Listed

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023 25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

KECI : Listed

PICCS : Listed

TSCA : Listed

NZIoC : Listed

TCSI : Listed

SECTION 16. OTHER INFORMATION

Further information

NFPA Rating (Health, Fire, Reac- 1, 3, 0

tivity)

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit : 8-hour time weighted average

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this docu-

ment can be looked up in reference literature (e.g. scientific

dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial

Hygienists

ADR = European Agreement concerning the International

Carriage of Dangerous Goods by Road

AICS = Australian Inventory of Chemical Substances ASTM = American Society for Testing and Materials

BEL = Biological exposure limits

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

CAS = Chemical Abstracts Service

CEFIC = European Chemical Industry Council CLP = Classification Packaging and Labelling

COC = Cleveland Open-Cup

DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List

EC = European Commission

EC50 = Effective Concentration fifty

ECETOC = European Center on Ecotoxicology and Toxicolo-

gy Of Chemicals

ECHA = European Chemicals Agency

EINECS = The European Inventory of Existing Commercial

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

Chemical Substances

EL50 = Effective Loading fifty

ENCS = Japanese Existing and New Chemical Substances

Inventory

EWC = European Waste Code

GHS = Globally Harmonised System of Classification and

Labelling of Chemicals

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IC50 = Inhibitory Concentration fifty

IL50 = Inhibitory Level fifty

IMDG = International Maritime Dangerous Goods

INV = Chinese Chemicals Inventory

IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables

KECI = Korea Existing Chemicals Inventory

LC50 = Lethal Concentration fifty LD50 = Lethal Dose fifty per cent.

LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading

LL50 = Lethal Loading fifty

MARPOL = International Convention for the Prevention of

Pollution From Ships

NOEC/NOEL = No Observed Effect Concentration / No Ob-

served Effect Level

OE_HPV = Occupational Exposure - High Production Volume

PBT = Persistent, Bioaccumulative and Toxic

PICCS = Philippine Inventory of Chemicals and Chemical

Substances

PNEC = Predicted No Effect Concentration

REACH = Registration Evaluation And Authorisation Of

Chemicals

RID = Regulations Relating to International Carriage of Dan-

gerous Goods by Rail

SKIN DES = Skin Designation

STEL = Short term exposure limit

TRA = Targeted Risk Assessment

TSCA = US Toxic Substances Control Act

TWA = Time-Weighted Average

vPvB = very Persistent and very Bioaccumulative

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

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).

Revision Date : 11/24/2023

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

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

ShellSol W HT

Version Revision Date: SDS Number: Print Date: 12/01/2023

25.1 11/24/2023 800001033975 Date of last issue: 08/05/2022

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.

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