

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ShellSol H

Product code : Q3512, Q7321, Q7398

Manufacturer or supplier's details

Supplier : **Shell - See 'Shipper' section of the Bill of Lading**
and/or 'Supplier' section of the Bunker Delivery Note for details

Telephone : See Bill of Lading and/or Bunker Delivery Note

Emergency telephone number : +1 703-527-3887

MARPOL Annex I Category : Naphthas and Condensates

Description on Bill of Lading (B/L)/Bunker delivery not/Shipping document : Naphtha (Annex 1, Appendix 1 Name)

Other information : SHELLSOL is a trademark owned by Shell Trademark Management B.V. and Shell Brands Inc. and used by affiliates of Shell plc.

Other information : See Section 14 for transportation information related to the Bill of Lading, other shipping documents.

2. HAZARDS IDENTIFICATION

GHS Classification


Flammable liquids : Category 4

Aspiration hazard : Category 1

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 3

GHS-Labeling

Hazard pictograms : 

Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:
H227 Combustible liquid.
HEALTH HAZARDS:
H304 May be fatal if swallowed and enters airways.

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

ENVIRONMENTAL HAZARDS:

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

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

No smoking.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P273 Avoid release to the environment.

Response:

P370 + P378 In case of fire: Use appropriate media to extinguish.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

Storage:

P403 + P235 Store in a well-ventilated place. 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 air-vapour mixtures can occur.

Repeated exposure may cause skin dryness or cracking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Substance

Chemical nature

: A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C7 through C12 and boiling in the range of approximately 90°C to 230°C (194°F to 446°F).

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
naphtha (petroleum), hydrodesulphurized heavy	64742-82-1	100 %

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Further information

Contains:

4. FIRST-AID MEASURES

General advice	: DO NOT DELAY. Keep victim calm. Obtain medical treatment immediately.
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 water 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. If persistent irritation occurs, obtain medical attention.
If swallowed	: 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	: If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.
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.
Notes to physician	: Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	: Do not use water in a jet.
Specific hazards during firefighting	: Clear fire area of all non-emergency personnel. Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

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 methods | : | Standard procedure for chemical fires.
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). |

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 unprotected personnel.
Do not breathe fumes, vapour.
Do not operate electrical equipment. |
| 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. |

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

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.

7. HANDLING AND STORAGE

General Precautions : 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 material.
Ensure that all local regulations regarding handling and storage 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

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

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.

Storage

Conditions for safe storage : Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

Other data : 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 flammable.

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

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

on Static Electricity).
IEC/TS 60079-32-1: Electrostatic hazards, guidance

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value (Form of exposure)	Control parameters / Permissible concentration	Basis
Mineral spirits 175 - 220	Not Assigned	TWA	350 mg/m ³	EU HSPA

Biological occupational exposure limits

No biological limit allocated.

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 Sécurité, (INRS), France <http://www.inrs.fr/accueil>

Protective measures

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

Engineering measures

: 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

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

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.

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

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)].

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, neoprene or 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

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

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 : 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. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant Standard, and provide employee skin care programmes.
- Wear antistatic and flame-retardant clothing, if a local risk assessment deems it so.
- Thermal hazards : Not applicable
- 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.

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 environmental legislation. Information on accidental release measures are to be found in section 6.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid.

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Colour	: colourless
Odour	: aromatic
Odour Threshold	: Data not available
pH	: Not applicable
pour point	: < -30 °C / < -22 °F
Melting point/freezing point	Data not available
Boiling point/boiling range	: Typical 187 - 210 °C / 369 - 410 °F
Flash point	: Typical 64 °C / 147 °F
Evaporation rate	: 0.06 Method: ASTM D 3539, nBuAc=1
	200 Method: DIN 53170, di-ethyl ether=1
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: 6.5 %(V)
Lower explosion limit	: 0.7 %(V)
Vapour pressure	: Typical 10 kPa (0 °C / 32 °F) Typical 50 kPa (20 °C / 68 °F) Typical 410 kPa (50 °C / 122 °F)
Relative vapour density	: 4.5
Relative density	: Data not available
Density	: Typical 795 kg/m ³ (15 °C / 59 °F) Method: ASTM D4052
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: log Pow: 4.2 - 7.2
Auto-ignition temperature	: 281 °C / 538 °F Method: ASTM E-659
Auto-ignition temperature	235 °C / 455 °F

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Method: DIN 51794

Decomposition temperature : Data not available

Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Typical 1.44 mm²/s (25 °C / 77 °F)

Explosive properties : Not applicable

Oxidizing properties : Data not available

Surface tension : Typical 26 mN/m, 20 °C / 68 °F, ASTM D-971

Conductivity : < 0.4 pS/m at 20 °C / 68 °F
Method: ASTM D-4308

Low 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 anti-static additives can greatly influence the conductivity of a liquid

Molecular weight : 158 g/mol

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.

Possibility of hazardous reactions : 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 electricity.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition : Hazardous decomposition products are not expected to form

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

products

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.

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.
Inhalation

Acute toxicity

Product:

Acute oral toxicity : LD50 Rat: > 5000 mg/kg
Remarks: Low toxicity

Acute inhalation toxicity : Rat: Remarks: Low toxicity by inhalation.
LC50 greater than near-saturated vapour concentration.

Acute dermal toxicity : LD50 Rat: > 2000 mg/kg
Remarks: Low toxicity

Components:

naphtha (petroleum), hydrodesulphurized heavy:

Acute oral toxicity : LD50 Rat: > 5000 mg/kg
Remarks: Low toxicity

Acute inhalation toxicity : Rat: Remarks: Low toxicity by inhalation.
LC50 greater than near-saturated vapour concentration.

Acute dermal toxicity : LD50 Rat: > 2000 mg/kg
Remarks: Low toxicity

Skin corrosion/irritation

Product:

Remarks: Not irritating to skin., Prolonged/repeated contact may cause defatting of the skin

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

which can lead to dermatitis.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

Remarks: Not irritating to skin., Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Not irritating to eye.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

Remarks: Not irritating to eye.

Respiratory or skin sensitisation

Product:

Remarks: Not a sensitiser., Based on available data, the classification criteria are not met.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

Remarks: Not a sensitiser., Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

: Remarks: Not mutagenic.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

: 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.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

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

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Material	GHS/CLP Carcinogenicity Classification
naphtha (petroleum), hydrodesulphurized heavy	No carcinogenicity classification.

Material	Other Carcinogenicity Classification
naphtha (petroleum), hydrodesulphurized heavy	IARC: Group 3: Not classifiable as to its carcinogenicity to humans

Reproductive toxicity

Product:

:
Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

:
Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: Inhalation of vapours or mists may cause irritation to the respiratory system.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

Remarks: Inhalation of vapours or mists may cause irritation to the respiratory system.

STOT - repeated exposure

Product:

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans, Causes damage to organs through prolonged or repeated exposure., Central nervous system: repeated exposure affects the nervous system.

Components:

naphtha (petroleum), hydrodesulphurized heavy:

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans, Causes damage to organs through prolonged or repeated exposure., Central nervous system: repeated exposure affects the nervous system.

Aspiration toxicity

Product:

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

Components:

naphtha (petroleum), hydrodesulphurized heavy:

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Basis for assessment : Incomplete ecotoxicological data are available for this product. The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.

Product:

Toxicity to fish (Acute toxicity) :
Remarks: LL/EL/IL50 >10 <= 100 mg/l
Harmful

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity) :
Remarks: LC/EC/IC50 > 100 mg/l
Practically non toxic:
Based on available data, the classification criteria are not met.

Toxicity to algae (Acute toxicity) :
Remarks: LL/EL/IL50 >10 <= 100 mg/l
Harmful

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l

Toxicity to bacteria : Remarks: Data not available

Components:

naphtha (petroleum), hydrodesulphurized heavy :

Toxicity to fish (Acute toxicity) : Remarks: LL/EL/IL50 >10 <= 100 mg/l

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

toxicity)	Harmful
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity)	: Remarks: LC/EC/IC50 > 100 mg/l Practically non toxic: Based on available data, the classification criteria are not met.
Toxicity to algae (Acute toxicity)	: Remarks: LL/EL/IL50 >10 <= 100 mg/l Harmful
Toxicity to bacteria	: Remarks: Data not available
Toxicity to fish (Chronic toxicity)	: Remarks: Data not available
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: Remarks: NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l

Persistence and degradability

Product:

Biodegradability	: Remarks: Readily biodegradable., Oxidises rapidly by photo-chemical reactions in air. Remarks: Not Persistent per IMO criteria., International Oil Pollution Compensation (IOPC) Fund definition: "A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distills at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."
------------------	---

Components:

naphtha (petroleum), hydrodesulphurized heavy :

Biodegradability	: Remarks: Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air. Remarks: Not Persistent per IMO criteria. International Oil Pollution Compensation (IOPC) Fund definition: "A non-persistent oil is oil, which, at the time of shipment, consists of hydrocarbon fractions, (a) at least 50% of which, by volume, distills at a temperature of 340°C (645°F) and (b) at least 95% of which, by volume, distills at a temperature of 370°C (700°F) when tested by the ASTM Method D-86/78 or any subsequent revision thereof."
------------------	---

Bioaccumulative potential

Product:

Bioaccumulation	: Remarks: Has the potential to bioaccumulate.
Partition coefficient: n-octanol/water	: log Pow: 4.2 - 7.2

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Components:

naphtha (petroleum), hydrodesulphurized heavy :

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.

Components:

naphtha (petroleum), hydrodesulphurized heavy :

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 information : Does not have ozone depletion potential.

Components:

naphtha (petroleum), hydrodesulphurized heavy :

Additional ecological information : Does not have ozone depletion potential.

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

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, cut or weld uncleaned drums.
Send to drum recoverer or metal reclaimer.
Comply with any local recovery or waste disposal regulations.

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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 is being carried under the scope of MARPOL Annex I.

15. REGULATORY INFORMATION

Other regulations : International Convention for the Safety of Life at Seas (SOLAS) Regulation VI/5-1.RESOLUTION MSC.286(86) ; RECOMMENDATIONS FOR MATERIAL SAFETY DATA SHEETS (MSDS) FOR MARPOL ANNEX I OIL CARGO AND OIL FUEL.

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:

DSL	: Listed
IECSC	: Listed
KECI	: Listed
PICCS	: Listed
EINECS	: Listed
TSCA	: Listed

16. OTHER INFORMATION

Abbreviations and Acronyms : The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

Further information

Training advice : Provide adequate information, instruction and training for operators.

SAFETY DATA SHEET

IMO (International Maritime Organization) SDS per SOLAS regulation VI/5-1

ShellSol H

Version 1.6

Revision Date 23.11.2023

Print Date 30.11.2023

Other information : 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).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.