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

1.1 Product identifier

Trade name : Shell Heat Transfer Oil S2

Product code : 001D8388

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

Use of the : Heat transfer oil.

Substance/Mixture Please refer to Ch16 for the registered uses under REACH.

Uses advised against

This product must not be used in applications other than those

listed in Section 1 without first seeking the advice of the

supplier.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : Shell UK Oil Products Limited

Shell Centre London SE1 7NA United Kingdom

(+44) 08007318888

Telefax

Email Contact for Safety Data : If you have any enquiries about the content of this SDS

Sheet please email lubricantSDS@shell.com

1.4 Emergency telephone number

: +44-(0) 151-350-4595

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Telephone

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms : No symbol

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:

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Not classified as a physical hazard

according to CLP criteria. **HEALTH HAZARDS:**

Not classified as a health hazard under CLP

criteria

ENVIRONMENTAL HAZARDS:

Not classified as environmental hazard

according to CLP criteria.

Precautionary statements Prevention:

No precautionary phrases.

Response:

No precautionary phrases.

Storage:

No precautionary phrases.

Disposal:

No precautionary phrases.

2.3 Other hazards

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Used oil may contain harmful impurities.

Not classified as flammable but will burn.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Highly refined mineral oil.

The highly refined mineral oil contains <3% (w/w) DMSO-

extract, according to IP346.

* contains one or more of the following CAS-numbers (REACH registration numbers): 64742-53-6 (01-2119480375-34), 64742-54-7 (01-2119484627-25), 64742-55-8 (01-2119487077-29), 64742-56-9 (01-2119480132-48), 64742-65-0 (01-2119471299-27), 68037-01-4 (01-2119486452-34),

72623-86-0 (01-2119474878-16), 72623-87-1 (01-

2119474889-13), 8042-47-5 (01-2119487078-27), 848301-69-

9 (01-0000020163-82).

Hazardous components

Chemical name	CAS-No. EC-No. Registration	Classification (REGULATION (EC) No	Concentration [%]
	number	1272/2008)	
Interchangeable low		Asp. Tox.1; H304	0 - 90

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viscosity base oil (<20,5 cSt @40°C) *

For explanation of abbreviations see section 16.

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 : No treatment necessary under normal conditions of use.

If symptoms persist, obtain medical advice.

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 : In general no treatment is necessary unless large quantities

are swallowed, however, get medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Oil acne/folliculitis signs and symptoms may include formation

of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Notes to doctor/physician:

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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.

5.2 Special hazards arising from the substance or mixture

Specific hazards during : Hazardous combustion products may include: A complex

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firefighting mixture of airborne solid and liquid particulates and gases

(smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic

compounds.

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

methods

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 6.1.1 For non emergency personnel:

Avoid contact with skin and eyes. 6.1.2 For emergency responders: Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions : Use appropriate containment to avoid environmental

contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate

barriers.

Local authorities should be advised if significant spillages

cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Slippery when spilt. Avoid accidents, clean up immediately.

Prevent from spreading by making a barrier with sand, earth

or other containment material.

Reclaim liquid directly or in an absorbent.

Soak up residue with an absorbent such as clay, sand or other

suitable material and dispose of properly.

6.4 Reference to other sections

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

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SECTION 7: Handling and storage

General Precautions : Use local exhaust ventilation if there is risk of inhalation of

vapours, mists or aerosols.

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.

7.1 Precautions for safe handling

Advice on safe handling : Avoid prolonged or repeated contact with skin.

Avoid inhaling vapour and/or mists.

When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning

materials in order to prevent fires.

Product Transfer : This material has the potential to be a static accumulator.

Proper grounding and bonding procedures should be used

during all bulk transfer operations.

7.2 Conditions for safe storage, including any incompatibilities

Other data : Keep container tightly closed and in a cool, well-ventilated

place. Use properly labeled and closable containers.

Store at ambient temperature.

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

The storage of this product may be subject to the Control of Pollution (Oil Storage) (England) Regulations. Further guidance may be obtained from the local environmental

agency office.

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

steel or high density polyethylene.

Unsuitable material: PVC.

Container Advice : Polyethylene containers should not be exposed to high

temperatures because of possible risk of distortion.

7.3 Specific end use(s)

Specific use(s) : Not applicable.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Oil mist, mineral		TWA	5 mg/m3	US. ACGIH Threshold Limit Values

Biological occupational exposure limits

No biological limit allocated.

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

Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

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.dauv.de/inhalt/index.isp

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

8.2 Exposure controls

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:

Adequate ventilation to control airborne concentrations.

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

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General Information:

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.

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.

Personal protective equipment

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. PVC, neoprene or nitrile rubber gloves 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.

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.

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Skin and body protection : Skin protection is not ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves.

Respiratory protection : No respiratory protection is ordinarily required under normal

conditions of use.

In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.

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 suitable, select an

appropriate combination of mask and filter.

Select a filter suitable for combined particulate/organic gases and vapours [Type A/Type P boiling point > 65°C (149°F)]

meeting EN14387 and EN143.

Thermal hazards : Not applicable

Hygiene measures : Exposure to this product should be reduced as low as

reasonably practicable. Reference should be made to the

Health and Safety Executive's publication "COSHH

Essentials".

Environmental exposure controls

General advice : Take appropriate measures to fulfill the requirements of

relevant environmental protection legislation. Avoid

contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant

before discharge to surface water.

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing

vapour.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Liquid at room temperature.

Colour : amber

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Odour : Slight hydrocarbon Odour Threshold : Data not available Hq : Not applicable

: -12 °CMethod: ISO 3016 pour point

Initial boiling point and boiling : > 280 °Cestimated value(s)

range

Flash point : 208 °C

Method: ISO 2719

220 °C

Method: ISO 2592

Evaporation rate : Data not available Flammability (solid, gas) : Data not available

Upper explosion limit : Typical 10 %(V)

Lower explosion limit : Typical 1 %(V)

Vapour pressure : < 0.5 Pa (20 °C)

estimated value(s)

Relative vapour density : > 1estimated value(s)

Relative density : 0.857 (20 °C)

: 857 kg/m3 (20 °C) Density

Method: ISO 12185

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : Data not available

Partition coefficient: n-

octanol/water

: Pow: > 6(based on information on similar products)

Auto-ignition temperature

320 °C

Viscosity

Viscosity, dynamic : Data not available Viscosity, kinematic : 270 mm2/s (0 °C) Method: ISO 3104

1.4 mm2/s (200 °C)

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Method: ISO 3104

5.1 mm2/s (100 °C) Method: ISO 3104

29 mm2/s (40.0 °C) Method: ISO 3104

Explosive properties : Not classified

Oxidizing properties : Data not available

9.2 Other information

Conductivity : This material is not expected to be a static accumulator.

Decomposition temperature : 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

Stable.

No hazardous reaction is expected when handled and stored according to provisions

10.3 Possibility of hazardous reactions

Hazardous reactions : Reacts with strong oxidising agents.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Strong oxidising agents.

10.6 Hazardous decomposition products

Hazardous decomposition

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

products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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Basis for assessment : Information given is based on data on the components and

the toxicology of similar products.

Acute toxicity

Product:

Acute oral toxicity : LD50 rat: > 5,000 mg/kg

Remarks: Expected to be of low toxicity:

Acute inhalation toxicity : LC 50 Rat: > 5 mg/l

Exposure time: 4 h

Remarks: Low toxicity by inhalation.

Acute dermal toxicity : Rabbit:

Remarks: Low toxicity: LD50 > 5000 mg/kg

Skin corrosion/irritation

Product:

Remarks: Not irritating to skin., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:

Remarks: Expected to be non-irritating to eyes.

Respiratory or skin sensitisation

Product:

Remarks: For respiratory and skin sensitisation:, Not expected to be a sensitiser.

Germ cell mutagenicity

Product:

: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:

Remarks: Not expected to be carcinogenic.

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Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skinpainting studies., Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

Material	GHS/CLP Carcinogenicity Classification
Highly refined mineral oil	No carcinogenicity classification.

Reproductive toxicity

Product:

Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

STOT - single exposure

Product:

Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product:

Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:

Not considered an aspiration hazard.

Further information

Product:

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

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

Remarks: Slightly irritating to respiratory system.

Summary on evaluation of the CMR properties

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Germ cell mutagenicity-

Assessment

: This product does not meet the criteria for classification in

categories 1A/1B.

Carcinogenicity -

Assessment

This product does not meet the criteria for classification in

categories 1A/1B.

Reproductive toxicity -

Assessment

: This product does not meet the criteria for classification in

categories 1A/1B.

SECTION 12: Ecological information

12.1 Toxicity

Basis for assessment : Ecotoxicological data have not been determined specifically

for this product.

Information given is based on a knowledge of the components

and the ecotoxicology of similar products.

Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).(LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test

extract).

Product:

Toxicity to fish (Acute

toxicity)

: Remarks: Expected to be practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute

toxicity)

: Remarks: Expected to be practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic

plants (Acute toxicity)

: Remarks: Expected to be practically non toxic:

LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic

toxicity)

Toxicity to crustacean

(Chronic toxicity)

Toxicity to microorganisms

(Acute toxicity)

: Remarks: NOEC/NOEL expected to be > 10 - <= 100 mg/l

: Remarks: NOEC/NOEL expected to be > 10 - <= 100 mg/l

Remarks: Expected to be practically non toxic:

LL/EL/IL50 > 100 mg/l

12.2 Persistence and degradability

Product:

: Remarks: Expected to be inherently biodegradable. Biodegradability

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12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Has the potential to bioaccumulate.

Partition coefficient: n-

octanol/water

: Pow: > 6Remarks: (based on information on similar products)

12.4 Mobility in soil

Product:

Mobility : Remarks: Liquid under most environmental conditions., If it

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

mobile.

Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : The substance does not fulfill all screening criteria for

persistence, bioaccumulation and toxicity and hence is not

considered to be PBT or vPvB.

12.6 Other adverse effects

Product:

Additional ecological

information

: Product is a mixture of non-volatile components, which are not

expected to be released to air in any significant quantities.,

Not expected to have ozone depletion potential,

photochemical ozone creation potential or global warming

potential.

Films formed on water may affect oxygen transfer and damage organisms.. May cause physical fouling of aquatic

organisms.

Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Waste product should not be allowed to contaminate soil or

ground water, or be disposed of into the environment. 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.

Contaminated packaging : Dispose in accordance with prevailing regulations, preferably

to a recognized collector or contractor. The competence of

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the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional,

national, and local laws and regulations.

Local legislation

Waste catalogue : EU Waste Disposal Code (EWC):

Waste Code : 13 08 99*

Remarks : Classification of waste is always the responsibility of the end

user.

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 Proper shipping name

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class

ADR : Not regulated as a dangerous good | Not regulated as a dangerous good |

14.4 Packing group

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.5 Environmental hazards

ADR : Not regulated as a dangerous good
RID : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Special Precautions: Refer to Chapter 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable

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Special precautions : Not applicable

Additional Information: MARPOL Annex 1 rules apply for bulk shipments by sea.

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 : Product is not subject to

(Annex XIV) Authorisation under REACH.

Volatile organic compounds : 0 %

Other regulations : Environmental Protection Act 1990 (as amended). Health and

Safety at Work etc. Act 1974. Consumers Protection Act 1987. Pollution Prevention and Control Act 1999. Environment Act 1995. Factories Act 1961. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011. Chemicals (Hazard Information and Packaging for Supply) Regulations 2009. Control of Substances Hazardous to Health Regulations 2002 (as

Substances Hazardous to Health Regulations 2002 (as amended). Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (as amended). Personal Protective Equipment Regulations 2002. Personal Protective Equipment at Work Regulations 1992. Hazardous Waste (England and Wales) Regulations 2005(as amended). Control of Major Accident Hazards Regulations 1999 (as amended). Renewable Transport Fuel Obligations Order 2007 (as amended). Energy Act 2011. Environmental Permitting (England and Wales) Regulations 2010 (as amended). Waste

(England and Wales) Regulations 2011 (as amended). Planning (Hazardous Substances) Act 1990 and associated regulations. The Environmental Protection (Controls on Ozone-Depleting Substances) Regulations 2011.

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

EINECS : All components listed or polymer exempt.

TSCA : All components listed.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

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Full text of H-Statements

H304 May be fatal if swallowed and enters airways.

Full text of other abbreviations

Asp. Tox. Aspiration hazard

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.

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 für 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

Toxicology Of Chemicals

ECHA = European Chemicals Agency

EINECS = The European Inventory of Existing Commercial

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

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LL50 = Lethal Loading fifty

MARPOL = International Convention for the Prevention of

Pollution From Ships

NOEC/NOEL = No Observed Effect Concentration / No

Observed 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

Dangerous 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

Further information

Other information : A vertical bar (|) in the left margin indicates an amendment

from the previous version.

Identified Uses according to the Use Descriptor System

Uses - Worker

Title : - Industrial

Uses in Coatings

Use in Cleaning Agents

Use in Oil and Gas field drilling and production operations

Lubricants
Use as a fuel
Functional Fluids
Use in laboratories
Manufacture of substance
Use as an intermediate

Formulation & (re)packing of substances and mixtures

Metal working fluids / rolling oils Use as binders and release agents Rubber production and processing

Water treatment chemicals

Mining chemicals

Distribution of substance

Uses - Worker

Title : - Professional

Uses in Coatings
Use in Cleaning Agents

Lubricants

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Use in Agrochemicals uses Explosives manufacture & use Metal working fluids / rolling oils Use as binders and release agents

Use as a fuel Functional Fluids

Road and construction applications

Use in laboratories

Water treatment chemicals

Polymer processing

Uses - Consumer

Title : - Consumer

Uses in Coatings Use in Cleaning Agents

Lubricants

Use in Agrochemicals uses

Use as a fuel Functional Fluids

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.