### Shell Naturelle S2 Hydraulic Fluid 46

Print Date 2024.11.04 Version 1.1 Revision Date 2024.07.29

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Shell Naturelle S2 Hydraulic Fluid 46 Chemical product name

Product code 00115605

Manufacturer or supplier's details

Supplier's company name, Shell Lubricants Japan K.K.

address and phone number Pacific Century Place Marunouchi 12F

1-11-1, Marunouchi

Chiyoda-ku Tokyo 100-6212

Japan

Telephone (+81) 03-3218-1780 Telefax : (+81) 03-3218-1781

Emergency telephone : [Important notice for customer support]

number

If you need support for product, please contact our customer

service centre.

Lub Customer Service Centre (Lub CSC)

Tel. 0120-064-315 / Fax. 0120-264-315 (JP Toll free)

E-mail. Inquiries-Lubes-JP@shell.com (Available for Japanese office hours only.)

**Contact for Safety Data** 

**Sheet** 

If you have any enquiries about the content of this SDS

please email lubricantSDS@shell.com

Recommended use of the chemical and restrictions on use

Recommended use Hydraulic fluid.

Restrictions on use

This substance may not be used for any purpose other than

recommended without expert advice

#### 2. HAZARDS IDENTIFICATION

#### GHS classification of chemical product

Based on available data this substance / mixture does not meet the classification criteria.

GHS label elements

: No Hazard Symbol required Hazard pictograms

Signal word : No signal word

Hazard statements PHYSICAL HAZARDS:

Not classified as a physical hazard under GHS criteria.

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**HEALTH HAZARDS:** 

Not classified as a health hazard under GHS criteria.

**ENVIRONMENTAL HAZARDS:** 

Not classified as an environmental hazard under GHS criteria.

Precautionary statements

Prevention:

No precautionary phrases.

Response:

No precautionary phrases.

Storage:

No precautionary phrases.

Disposal:

No precautionary phrases.

#### Other hazards which do not result in classification

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. Highpressure injection under the skin may cause serious damage including local necrosis. Not classified as flammable but will burn.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Blend of polyol ester and additives

#### Hazardous components

Substance name	CAS-No.	Classification	Concentration (%
			w/w)
Alkyl dithiophosphate	68413-48-9	Skin Sens.1B; H317 Aquatic Chronic4; H413	0.1 - 0.49
Amine phosphate	68603-55-4	Skin Irrit.2; H315 Aquatic Acute1; H400 Aquatic Chronic3; H412	0.1 - 0.24

For explanation of abbreviations see section 16.

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I. FIRST-AID MEASURES			
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 water and follow by washing with soap if available.  If persistent irritation occurs, obtain medical attention.		oap if available.	
		When using high pressure equipmed under the skin can occur. If high pressure the skin can occur. If high pressure the skin can occur. If high pressure the same state of the symptoms to develop.  Obtain medical attention even in the wounds.	essure injuries occur, the ly to a hospital. Do not wait
In case of eye contact	:	Flush eye with copious quantities of Remove contact lenses, if present rinsing.  If persistent irritation occurs, obtain	and easy to do. Continue
If swallowed	:	In general no treatment is necessa are swallowed, however, get medic	
Most important symptoms and effects, both acute and delayed	:	Oil acne/folliculitis signs and symptof black pustules and spots on the Ingestion may result in nausea, vor	skin of exposed areas.
		Local necrosis is evidenced by delatissue damage a few hours following	
Protection of first-aiders	:	When administering first aid, ensur appropriate personal protective equincident, injury and surroundings.	
Notes to physician	:	Treat symptomatically.	
		High pressure injection injuries requintervention and possibly steroid the damage and loss of function.  Because entry wounds are small as seriousness of the underlying dama determine the extent of involvement anaesthetics or hot soaks should be can contribute to swelling, vasospa surgical decompression, debridement foreign material should be performed anaesthetics, and wide exploration	erapy, to minimise tissue  nd do not reflect the age, surgical exploration to t may be necessary. Local e avoided because they sm and ischaemia. Prompt ent and evacuation of ed under general

#### 5. FIRE-FIGHTING MEASURES

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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

: Hazardous combustion products may include:

A complex mixture of airborne solid and liquid particulates and

gases (smoke).

Carbon monoxide may be evolved if incomplete combustion

occurs.

Unidentified organic and inorganic compounds.

Specific extinguishing

methods

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

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 Environmental precautions : Avoid contact with skin and eyes.

: Use appropriate containment to prevent uncontrolled release. 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.

Methods and materials for containment and 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.

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.

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#### 7. HANDLING AND STORAGE

Handling

Technical measures : 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.

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.

Facial protective equipment If material is handled such that it could be splashed into eyes,

protective eyewear is recommended.

Describe contact avoidance,

etc

: Strong oxidising agents.

Storage

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

Use properly labeled and closable containers.

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.

#### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

#### Biological occupational exposure limits

Biological Limit Values (BLV) have not been established for this material.

#### **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

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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.dquv.de/inhalt/index.isp

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

労働者の健康障害を防止するため化学物質の濃度基準値とその適用方法などを定めました (mhlw.go.jp)

#### **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.

#### 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

#### Protective measures

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

Respiratory protection : No respiratory protection is ordinarily required under normal

conditions of use.

In accordance with good industrial hygiene practices,

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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 the combination of organic gases and vapours and particles [Type A/Type P 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. 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.

Eye and face 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 ordinarily required beyond standard

work clothes.

It is good practice to wear chemical resistant gloves.

Thermal hazards : Not applicable

#### **Environmental exposure controls**

General advice : Take appropriate measures to fulfill the requirements of

relevant environmental protection legislation. Avoid

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contamination of the environment by following advice given in Section 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.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid at room temperature.

Colour : yellow

Odour : Data not available
Odour Threshold : Data not available

pH : Not applicable pour point : -42 °C / -44 °F

Method: ISO 3016

Melting / freezing point Data not available

Boiling point, initial boiling point and boiling range

: > 280 °C / 536 °Festimated value(s)

Flash point : 322 °C / 612 °F

Method: ISO 2592

Evaporation rate : Data not available

Flammability

Flammability (solid, gas) : Not applicable

Flammability (liquids) : Not classified as flammable but will burn.

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit : Typical 10 %(V)

Lower explosion limit : Typical 1 %(V)

Vapour pressure : < 0.5 Pa (20 °C / 68 °F)

estimated value(s)

Relative vapour density : > 5

Density and / or relative density

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: 0.921 (15.0 °C / 59.0 °F) Relative density

: 921 kg/m3 (15.0 °C / 59.0 °F) Density

Method: ISO 12185

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : Data not available

Partition coefficient: n-

: log Pow: > 6

octanol/water

(based on information on similar products)

: > 320 °C / 608 °F Auto-ignition point

Decomposition temperature : Data not available

Viscosity

Viscosity (Dynamic) : Data not available

Viscosity, kinematic 1522 mm2/s (-20 °C / -4 °F)

Method: ASTM D445

8.4 mm2/s (100 °C / 212 °F) Method: ASTM D445

46 mm2/s (40.0 °C / 104.0 °F)

Method: ASTM D445

Particle characteristics

Particle size : Data not available

Explosive properties : Classification Code: Not classified

Oxidizing properties : Data not available

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

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 : Stable.

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Possibility of hazardous

Conditions to avoid

reactions

: Reacts with strong oxidising agents.

: Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition

products

: No decomposition if stored and applied as directed.

#### 11. TOXICOLOGICAL INFORMATION

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

the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a

whole, rather than for individual component(s).

Information on likely routes of

exposure

: Skin and eye contact are the primary routes of exposure

although exposure may occur following accidental ingestion.

#### Acute toxicity

**Product:** 

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

Remarks: Low toxicity

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

Acute inhalation toxicity : Remarks: Based on available data, the classification criteria

are not met.

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg

Remarks: Low toxicity

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

#### Skin corrosion/irritation

#### **Product:**

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

#### Serious eye damage/eye irritation

#### Product:

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met

#### Respiratory or skin sensitisation

#### **Product:**

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Remarks: Not a skin sensitiser.

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

#### Germ cell mutagenicity

#### **Product:**

: Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

#### Carcinogenicity

#### **Product:**

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

Material	GHS/CLP Carcinogenicity Classification	
Alkyl dithiophosphate	No carcinogenicity classification.	
Amine phosphate	No carcinogenicity classification.	

#### Reproductive toxicity

#### **Product:**

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

#### STOT - single exposure

#### **Product:**

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

#### STOT - repeated exposure

#### **Product:**

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

#### Aspiration toxicity

#### **Product:**

Not an aspiration hazard.

#### **Further information**

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#### **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: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Remarks: Slightly irritating to respiratory system.

#### 12. ECOLOGICAL INFORMATION

Basis for assessment : Ecotoxicological data have not been determined specifically

for this product.

Information given is based on product data, 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).

#### **Ecotoxicity**

#### **Product:**

Toxicity to fish (Acute

toxicity)

Remarks: LL/EL/IL50 > 100 mg/l

Practically non toxic:

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

Toxicity to crustacean (Acute

toxicity)

Remarks: LL/EL/IL50 > 100 mg/l

Practically non toxic:

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

Toxicity to algae/aquatic

plants (Acute toxicity)

Remarks: LL/EL/IL50 > 100 mg/l

Practically non toxic:

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

Toxicity to fish (Chronic

toxicity)

: Remarks: Based on available data, the classification criteria

are not met.

Toxicity to crustacean

(Chronic toxicity)

: Remarks: Based on available data, the classification criteria

are not met.

Toxicity to microorganisms

(Acute toxicity)

: Remarks: Based on available data, the classification criteria

are not met.

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Components:

Amine phosphate:

M-Factor (Short-term (acute)

aquatic hazard)

Persistence and degradability

Product:

Biodegradability : Remarks: Readily biodegradable.

: 1

**Bioaccumulation** 

**Product:** 

Bioaccumulation : Remarks: Contains components with the potential to

bioaccumulate.

Partition coefficient: n-

octanol/water

: log Pow: > 6Remarks: (based on information on similar

products)

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.

Other adverse effects

no data available **Product:** 

Additional ecological

information

: Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential., Product is a mixture of non-volatile components, which will not be

released to air in any significant quantities under normal

conditions of use.

Poorly soluble mixture., Causes physical fouling of aquatic

organisms.

Hazardous to the ozone layer

Not applicable

#### 13. DISPOSAL CONSIDERATIONS

Disposal methods

Chemicals (residual waste) : Recover or recycle if possible.

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

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.

ground water, or be disposed of into the environment.

Do not dispose into the environment, in drains or in water

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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.

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

Contaminated containers and packaging

Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation Remarks

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

#### 14. TRANSPORT INFORMATION

#### Regulatory information when there are domestic regulations

Refer to section 15 for specific national regulation.

#### **International Regulations**

ADR

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

#### Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 rules apply for bulk shipments by sea.

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.

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#### 15. REGULATORY INFORMATION

#### **Related Regulations**

#### **Fire Service Law**

Not dangerous good Designated Flam. Subs, Flammable liquid, (2 cubic metre)

#### **Chemical Substance Control Law**

Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

#### Industrial Safety and Health Law

#### Harmful Substances Prohibited from Manufacture

Not applicable

#### Harmful Substances Required Permission for Manufacture

Not applicable

#### Substances Prevented From Impairment of Health

Not applicable

### Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

### Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

#### Substances Subject to be Notified Names

Not applicable

#### Substances Subject to be Indicated Names

Not applicable

#### Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

#### **Ordinance on Prevention of Organic Solvent Poisoning**

Not applicable

### Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Not applicable

#### Poisonous and Deleterious Substances Control Law

Not applicable

### Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Not applicable

#### Vessel Safety Law

Not applicable

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#### **Aviation Law**

Not applicable

#### Marine Pollution and Sea Disaster Prevention etc Law

Not classified as marine pollutant

#### **Water Pollution Control Law**

Oil emissions regulations (Law Art. 2-5, Enforcement Order Art. 3-4)

#### Waste Disposal and Public Cleansing Law

Industrial waste

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

TSCA : All components listed.

ENCS : All components listed.

#### 16. OTHER INFORMATION

#### **Full text of H-Statements**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

#### Full text of other abbreviations

Aquatic Acute Short-term (acute) aquatic hazard Aquatic Chronic Long-term (chronic) aquatic hazard

Aguatic Chronic Hazardous to the aquatic environment - chronic hazard

Skin Irrit. Skin irritation
Skin Sens. Skin sensitisation

#### **Abbreviations and Acronyms**

AllC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization: KECI - Korea Existing Chemicals Inventory: LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships: n.o.s. - Not Otherwise Specified: Nch - Chilean Norm: NO(A)EC - No Observed (Adverse)

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Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

#### **Further information**

Training advice : Provide adequate information, instruction and training for

operators.

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).

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

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