according to the Hazardous Products Regulations

AeroShell Fluid 41 (US)

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SECTION 1. IDENTIFICATION

Product name : AeroShell Fluid 41 (US)

Product code : 001E6018

Manufacturer or supplier's details

Manufacturer/Supplier : Shell Canada Products

4000-500 Centre Street SE Calgary AB T2G 1A6

Canada

Telephone : (+1) 8006611600 Telefax : (+1) 4033848345

Emergency telephone num-

. . .

CHEMTREC (24 hr): 1 (703) 527-3887 or 1 (800) 424-9300

(US)

Recommended use of the chemical and restrictions on use

Recommended use : Mineral hydraulic fluid for aircraft.

For further details consult the AeroShell Book on

www.shell.com/aviation.

Restrictions on use : This product must be used, handled, and applied in accord-

ance with the requirements of the equipment manufacturer's

manuals, bulletins and other documentation.

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

plier.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Flammable liquids : Category 4

Aspiration hazard : Category 1

Skin irritation : Category 2

Short-term (acute) aquatic

hazard

Category 2

Long-term (chronic) aquatic : Category 2

according to the Hazardous Products Regulations

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hazard

GHS label elements

Hazard pictograms







Signal word : Danger

Hazard statements : PHYSICAL HAZARDS:

H227 Combustible liquid. HEALTH HAZARDS: H315 Causes skin irritation.

H304 May be fatal if swallowed and enters airways.

ENVIRONMENTAL HAZARDS:

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P332 + P313 If skin irritation occurs: Get medical advice/ atten-

tion.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Hazardous components which must be listed on the label:

Contains petroleum distillates.

Contains Hindered Phenolic Antioxidant

Contains Phenol, isobutylenated, phosphate (3:1).

Other hazards which do not result in classification

Used oil may contain harmful impurities. Not classified as flammable but will burn.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Highly refined mineral oils and additives.

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

according to the Hazardous Products Regulations

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extract, according to IP346.

Classification based on DMSO extract content < 3% (Regula-

tion (EC) 1272/2008, Annex VI, Part 3, Note L).

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated light naphthenic	Distillates (pe- troleum), hy- drotreated light naphthenic	64742-53-6	60 - 80 *
Distillates (petroleum), hydrotreated middle	Distillates (pe- troleum), hy- drotreated mid- dle	64742-46-7	10 - 30 *
Butylated hydroxytolu- ene	2,6-di-tert-butyl- p-cresol	128-37-0	0.5 - 1 *
Phenol, isobutylenated, phosphate (3:1)	Phenol, isobutylenated, phosphate (3:1)	68937-40-6	0.5 - 1 *

^{*} Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST-AID MEASURES

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

Remove to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or Cardio-Pulmonary Resuscitation as required and transport to

the nearest medical facility.

In case of skin contact : Remove contaminated clothing. Immediately flush skin with

large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If needed, transport

to the nearest medical facility for additional treatment.

When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait

for symptoms to develop.

Obtain medical attention even in the absence of apparent

wounds.

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

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

insing.

If persistent irritation occurs, obtain medical attention.

according to the Hazardous Products Regulations

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If swallowed

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

Most important symptoms and effects, both acute and delayed

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

congestion, shortness of breath, and/or fever.

The onset of respiratory symptoms may be delayed for sever-

al hours after exposure.

Skin irritation signs and symptoms may include a burning sen-

sation, redness, swelling, and/or blisters.

Defatting dermatitis signs and symptoms may include a burn-

ing sensation and/or a dried/cracked appearance.

Ingestion may result in nausea, vomiting and/or diarrhoea. Local necrosis is evidenced by delayed onset of pain and

tissue damage a few hours following injection.

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

Call a doctor or poison control center for guidance.

Treat symptomatically.

High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue dam-

age and loss of function.

Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthet-

ics, and wide exploration is essential.

SECTION 5. FIRE-FIGHTING MEASURES

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

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

Unsuitable extinguishing

media

Do not use water in a jet.

Specific hazards during fire-

fighting

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.

according to the Hazardous Products Regulations

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Unidentified organic and inorganic compounds.

Specific extinguishing meth-

Use extinguishing measures that are appropriate to local cir-

cumstances 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).

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emergency procedures

Personal precautions, protec: Avoid contact with skin and eyes.

Environmental precautions

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.

SECTION 7. HANDLING AND STORAGE

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.

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

according to the Hazardous Products Regulations

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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 mate-

rials in order to prevent fires.

Avoidance of contact : Strong oxidising agents.

Product Transfer : Proper grounding and bonding procedures should be used

during all bulk transfer operations to avoid static accumulation.

Further information on stor-

age stability

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

place.

Use properly labeled and closable containers. Must be stored in a diked (bunded) area.

Store at ambient temperature.

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

steel or high density polyethylene.

Unsuitable material: PVC.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhal-	5 mg/m3	ACGIH
		able particu-		
		late matter)		
Butylated hydroxytoluene	128-37-0	TWA (Inhal-	2 mg/m3	ACGIH
		able fraction		
		and vapor)		

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

according to the Hazardous Products Regulations

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http://www.osha.gov/

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

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

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

Engineering measures

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.

Eye washes and showers for emergency use.

Personal protective equipment

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 the combination of organic gases

according to the Hazardous Products Regulations

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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 protection

Wear goggles for use against liquids and gas.
Wear full face shield if splashes are likely to occur.
If a local risk assessment deems it so then chemical splash goggles may not be required and safety glasses may provide adequate eye protection.

Skin and body protection

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

Protective measures

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

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 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

according to the Hazardous Products Regulations

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vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state : Liquid at room temperature.

Colour : red

Odour : Slight hydrocarbon

Odour Threshold : Data not available

Pour point : $<= -60 \, ^{\circ}\text{C}$

Method: ASTM D97

Melting / freezing point Data not available

Initial boiling point and boiling :

range

> 280 °C

estimated value(s)

Flammability (solid, gas) : Data not available

Upper explosion limit / Upper :

flammability limit

Typical 10 %(V)

Lower explosion limit / Lower :

flammability limit

Typical 1 %(V)

Flash point : $>= 82 \, ^{\circ}\text{C}$

Method: ASTM D93 (PMCC)

Auto-ignition temperature : > 320 °C

Decomposition temperature : Data not available

pH : Not applicable

Viscosity

according to the Hazardous Products Regulations

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Viscosity, dynamic : Data not available

Viscosity, kinematic : 13.2 mm2/s (40.0 °C)

Method: ASTM D445

4.9 mm2/s (100 °C) Method: ASTM D445

600 mm2/s (-40 °C) Method: ASTM D445

2500 mm2/s (-54 °C) Method: ASTM D445

Solubility(ies)

Water solubility : negligible

Solubility in other solvents : Data not available

Partition coefficient: n-

octanol/water

: log Pow: > 6

(based on information on similar products)

Vapour pressure : < 0.5 Pa (20 °C)

estimated value(s)

Relative density : 0.8734 (15 °C)

Density : 873.4 kg/m3 (15.0 °C)

Method: Unspecified

Relative vapour density : > 1

estimated value(s)

Particle characteristics

Particle size : Data not available

9.2 Other information

Explosives : Classification Code: Not classified

Oxidizing properties : Data not available

Evaporation rate : Data not available

according to the Hazardous Products Regulations

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

SECTION 10. STABILITY AND REACTIVITY

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

addition to those listed in the following sub-paragraph.

Chemical stability : Stable.

Possibility of hazardous reac-

tions

Reacts with strong oxidising agents.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

Hazardous decomposition

products

No decomposition if stored and applied as directed.

SECTION 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 com-

ponent(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.

Remarks: Aspiration into the lungs may cause chemical

pneumonitis which can be fatal.

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

are not met.

Acute dermal toxicity : LD 50 (Rabbit): > 5,000 mg/kg

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Remarks: Low toxicity

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

Components:

Distillates (petroleum), hydrotreated middle:

Acute inhalation toxicity : LC50 (Rat): > 1 - < 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Remarks: Harmful if inhaled.

Skin corrosion/irritation

Product:

Remarks : Causes skin irritation.

Components:

Distillates (petroleum), hydrotreated middle:

Species : Rabbit Exposure time : 24 h

Method : Test(s) equivalent or similar to OECD Test Guideline 404

Result : Skin irritation

Remarks : Causes skin irritation.

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:

Remarks : Not a skin sensitiser.

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

Germ cell mutagenicity

Product:

Genotoxicity in vivo : 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.

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IARC No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

OSHANo component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

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:

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

Further information

Product:

Remarks : Used oils may contain harmful impurities that have accumu-

lated 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 : Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

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

according to the Hazardous Products Regulations

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individual component(s).

Ecotoxicity

Product:

Toxicity to fish : Remarks: LL/EL/IL50 1-10 mg/l

Toxic

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: LL/EL/IL50 1-10 mg/l

Toxic

Toxicity to algae/aquatic

plants

Remarks: LL/EL/IL50 1-10 mg/l

Toxic

Toxicity to fish (Chronic tox-

icity)

Remarks: Data not available

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

Remarks: Data not available

Toxicity to microorganisms : Remarks: Data not available

Components:

Distillates (petroleum), hydrotreated middle:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 1 - 10 mg/l

Exposure time: 96 h

Method: Test(s) equivalent or similar to OECD Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia (water flea)): 1 - 10 mg/l

Exposure time: 48 h

Method: Test(s) equivalent or similar to OECD Guideline 202

Toxicity to algae/aquatic

plants

LL50 (Raphidocelis subcapitata (freshwater green alga)): 1 -

10 mg/l

Exposure time: 72 h

Method: Test(s) equivalent or similar to OECD Test Guideline

201

Butylated hydroxytoluene:

Toxicity to fish : LL50 (Oryzias latipes (Orange-red killifish)): 1.1 mg/l

Exposure time: 96 h

Method: Regulation (EC) No. 440/2008, Annex, C.1

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.48 mg/l

Exposure time: 48 h

Method: Test(s) equivalent or similar to OECD Guideline 202

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M-Factor (Acute aquatic tox-

icity)

: 1

Toxicity to fish (Chronic tox-

icity)

NOEC (Oryzias latipes (Orange-red killifish)): 0.53 mg/l

Exposure time: 30 d

Method: Test(s) equivalent or similar to OECD Guideline 210

Toxicity to daphnia and other : aquatic invertebrates (Chron-

aquatic invertebrates

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.069 mg/l

Exposure time: 21 d

Method: Test(s) equivalent or similar to OECD Guideline 211

M-Factor (Chronic aquatic

toxicity)

: 1

Phenol, isobutylenated, phosphate (3:1):

M-Factor (Acute aquatic tox- : 1

icity)

Persistence and degradability

Product:

Biodegradability : Remarks: Not readily biodegradable.

Major constituents are inherently biodegradable, but contains

components that may persist in the environment.

Components:

Butylated hydroxytoluene:

Biodegradability : Exposure time: 62 d

Method: OECD Test Guideline 309 Remarks: Degradation half life

5.65 days

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Contains constituents with the potential to bioaccu-

mulate.

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

Product:

according to the Hazardous Products Regulations

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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.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues

Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal meth-

ods in compliance with applicable regulations.

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. Waste, spills or used product is dangerous waste.

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

contamination.

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

nical aspects at controlling pollutions from ships.

Contaminated packaging

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.

SECTION 14. TRANSPORT INFORMATION

TDG

according to the Hazardous Products Regulations

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Not regulated as a dangerous good

International Regulations

IATA-DGR

UN/ID No. : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Distillates (petroleum), hydrotreated middle, Phenol, isobutyl-

enated, phosphate (3:1))

Class : 9
Packing group : III
Labels : 9

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Distillates (petroleum), hydrotreated middle, Phenol, isobutyl-

enated, phosphate (3:1))

Class : 9
Packing group : III
Labels : 9
Marine pollutant : yes

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.

SECTION 15. REGULATORY INFORMATION

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

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

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

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

TSCA : All components listed.

DSL : All components listed.

according to the Hazardous Products Regulations

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SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

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

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - 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) 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

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

Sources of key data used to compile the Safety Data

Sheet

The quoted data are from, but not limited to, one or more sources of information (e.g. toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU

IUCLID date base, EC 1272 regulation, etc).

Revision Date : 2025-06-13 Date format : mm/dd/yyyy

according to the Hazardous Products Regulations

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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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