

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Shell Gadus S3 T220 2

Product code : 001D8546

#### Manufacturer or supplier's details

Supplier : Shell Eastern Petroleum (Pte) Ltd  
(196000089G)  
The Metropolis Tower 1,  
9 North Buona Vista Drive, #07-01  
Singapore 138588  
Singapore

Telephone : (+65) 62632975

Telefax : (+65) 62632049

Emergency telephone  
number : +65 6263 2975

**Email Contact for Safety  
Data Sheet** : If you have any enquiries about the content of this SDS  
please email [lubricantSDS@shell.com](mailto:lubricantSDS@shell.com)

#### Recommended use of the chemical and restrictions on use

Recommended use : Automotive and industrial grease.

---

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

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

#### GHS label elements

Hazard pictograms : No Hazard Symbol required

Signal word : No signal word

Hazard statements : PHYSICAL HAZARDS:  
Not classified as a physical hazard under GHS criteria.  
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.

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

**Disposal:**

No precautionary phrases.

Sensitising components : Contains mercaptothiadiazole derivative. May produce an allergic reaction.

**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 grease may contain harmful impurities. High-pressure injection under the skin may cause serious damage including local necrosis. Not classified as flammable but will burn.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : A lubricating grease containing highly-refined mineral oils and additives.  
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

Hazardous components

Chemical name	CAS-No.	Classification	Concentration [%]
Alkaryl amine	68411-46-1	Aquatic Chronic3; H412	1 - 3
Arylphosphorothionate	597-82-0	Aquatic Chronic4; H413	< 3
Zinc dialkyldithiophosphate	68457-79-4	Skin Irrit.2; H315 Eye Dam.1; H318 Aquatic Chronic2; H411	< 2.4
Mercaptothiadiazole derivative	72676-55-2	Skin Sens.1; H317	0.1 - 0.9

For explanation of abbreviations see section 16.

### 4. FIRST-AID MEASURES

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

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.

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

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

---

	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 rinsing. If persistent irritation occurs, obtain medical attention.
If swallowed	: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.
Most important symptoms and effects, both acute and delayed	: 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.  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	: Treat symptomatically.  High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage 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 anaesthetics, and wide exploration is essential.

---

### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	: Do not use water in a jet.
Specific hazards during firefighting	: 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	: Use extinguishing measures that are appropriate to local

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1  
methods

Revision Date 06.10.2017  
circumstances and the surrounding environment.

Print Date 07.10.2017

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 : Avoid contact with skin and eyes.

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.

Methods and materials for containment and cleaning up : Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Additional advice : 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.

---

### 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.

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.

Avoidance of contact : Strong oxidising agents.

#### Storage

Other data : Keep container tightly closed and in a cool, well-ventilated place.  
Use properly labeled and closable containers.

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

Store at ambient temperature.

- 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

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not Assigned	PEL (long term) (Mist)	5 mg/m <sup>3</sup>	SG OEL
Oil mist, mineral	Not Assigned	PEL (short term) (Mist)	10 mg/m <sup>3</sup>	SG OEL
Oil mist, mineral	Not Assigned	TWA ((inhalable fraction))	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
Oil mist, mineral	Not Assigned	(Mist)	10 mg/m <sup>3</sup>	Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances
Oil mist, mineral	Not Assigned	TWA (Mist)	5 mg/m <sup>3</sup>	OSHA Z-1
	Not Assigned	TWA (Inhalable fraction)	5 mg/m <sup>3</sup>	ACGIH

#### Biological occupational exposure limits

No biological limit allocated.

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

### Monitoring Methods

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

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

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

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

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

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

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

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

### 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.

Due to the product's semi-solid consistency, generation of mists and dusts is unlikely to occur.

### Personal protective equipment

#### Protective measures

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

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

PPE suppliers.

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 and vapours [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 : 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

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Semi-solid at room temperature.

Colour : light brown

Odour : Slight hydrocarbon

Odour Threshold : Data not available

pH : Not applicable

Drop point : 260 °C / 500 °F Method: IP 396

Initial boiling point and boiling range : Data not available

Flash point : Not applicable

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 / 68 °F)  
estimated value(s)

Relative vapour density : > 1 estimated value(s)

Relative density : 0.900 (15 °C / 59 °F)

Density : 900 kg/m<sup>3</sup> (15.0 °C / 59.0 °F)  
Method: Unspecified

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 / 608 °F



# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

---

### Viscosity

Viscosity, dynamic : Data not available

Viscosity, kinematic : Not applicable

Explosive properties : Not classified

Oxidizing properties : Data not available

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

Decomposition temperature : Data not available

---

### 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 reactions : Reacts with strong oxidising agents.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidising agents.

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

---

### 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: Expected to be of low toxicity:

Acute inhalation toxicity : Remarks: Not considered to be an inhalation hazard under normal conditions of use.

---

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg  
Remarks: Expected to be of low toxicity:

### Skin corrosion/irritation

**Product:**

Remarks: Expected to be slightly irritating., 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 slightly irritating.

**Components:**

**Zinc dialkyldithiophosphate:**

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

### Respiratory or skin sensitisation

**Product:**

Remarks: Not expected to be a skin sensitiser.

**Components:**

**Mercaptothiadiazole derivative:**

Remarks: May cause an allergic skin reaction in sensitive individuals.

### Germ cell mutagenicity

**Product:**

: Remarks: Not considered a mutagenic hazard.

### Carcinogenicity

**Product:**

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting 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

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

**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 grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal., ALL used grease 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 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).

### Ecotoxicity

**Product:**

Toxicity to fish (Acute) :

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

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) :

Remarks: Data not available

Toxicity to crustacean (Chronic toxicity) :

Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) :

Remarks: Data not available

### Persistence and degradability

#### Product:

Biodegradability

: Remarks: Expected to be not readily biodegradable., Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

### Bioaccumulative potential

#### Product:

Bioaccumulation

: Remarks: Contains components with the potential to bioaccumulate.

Partition coefficient: n-octanol/water

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

### Mobility in soil

#### Product:

Mobility

: Remarks: Semi-solid under most environmental conditions., If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

### Other adverse effects

no data available

#### 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.

Poorly soluble mixture., 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.

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

---

### 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste from residues : Recover or recycle if possible.  
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.  
Do not dispose into the environment, in drains or in water courses

Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment.  
Waste, spills or used product is dangerous waste.

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.

---

### 14. TRANSPORT INFORMATION

#### 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

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

#### 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.

---

### 15. REGULATORY INFORMATION

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

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

#### Local Regulations

Workplace Safety and Health Act & Workplace Safety and Health (General Provision) Regulations	This product is not subject to the requirements in the Act/Regulations.
Fire Safety Act and Fire Safety (Petroleum & Flammable Materials) Regulations	This product is not subject to the requirements in the Act/Regulations.
Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations	This product is not subject to the requirements in the Act/Regulations.
Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations	This product is not subject to control under this Act/ Regulation.

#### Other international regulations

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

EINECS : All components listed or polymer exempt.  
TSCA : All components listed.

## 16. OTHER INFORMATION

#### Full text of H-Statements

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H411 Toxic to aquatic life with long lasting effects.  
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 Chronic Chronic aquatic toxicity  
Eye Dam. Serious eye damage  
Skin Irrit. Skin irritation  
Skin Sens. Skin sensitisation

AICS - Australian Inventory of Chemical Substances; 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; CPR - Controlled Products Regulations; 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

# SAFETY DATA SHEET

## Shell Gadus S3 T220 2

Version 2.1

Revision Date 06.10.2017

Print Date 07.10.2017

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; 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

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

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.

SG / EN