# SAFETY DATA SHEET



According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

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

1.1. Product identifier

Trade name or designation

of the mixture

NAVIGATOR GL-5 85W-140

Registration number

None.

Synonyms **Product code** 

RP\_4009M

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

Automotive applications.

Uses advised against

Identified uses

All other uses.

1.3. Details of the supplier of the safety data sheet Company name

REPSOL LUBRICANTES Y ESPECIALIDADES, S.A.

Address

Méndez Álvaro, 44 28045 - MADRID, Spain

Telephone

+34 917538000 /+34 917538100

+34 902303145

**Email address** 

FDSRLESA@repsol.com

1.4. Emergency telephone number

Carechem 24

+34 91 114 2520 / +44 1235 239670

### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

#### 2.2. Label elements

# Label according to Regulation (EC) No. 1272/2008 as amended

None. Hazard pictograms None Signal word

**Hazard statements** The mixture does not meet the criteria for classification.

**Precautionary statements** 

Prevention Not assigned. Not assigned. Response Storage Not assigned. Not assigned. **Disposal** 

Supplemental information on

the label

EUH208 - Contains Polysulphides, di-tert-Bu, Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by

amines, C12-14- tert-alkyl. May produce an allergic reaction.

EUH210 - Safety data sheet available on request.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

Please refer to Sections 5, 6 and 7 of this SDS for information on other hazards, different from

classification hazards but which may contribute to the overall hazards of the product.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

**General information** 

**Chemical name** CAS-No. / EC No. REACH Registration No. **Notes** Index No. 68937-96-2 01-2119540515-43-XXXX Polysulphides, di-tert-Bu 0.8 - 1.9273-103-3 Classification: Skin Sens. 1B;H317, Aquatic Chronic 3;H412 Specific Concentration Limits: Skin Sens. 1B;H317: C >= 46 %

Reaction products of 0,4 - 0,84-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted

931-384-6

by amines, C12-14- tert-alkyl Classification: Acute Tox. 4;H302;(ATE: 500 mg/kg), Eye Dam. 1;H318, Skin Sens.

01-2119493620-38-XXXX

1B;H317, Aquatic Chronic 2;H411 Specific Concentration Limits: Eye Irrit. 2;H319: 50 % < C <= 100 %

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in **Composition comments** 

percent by volume.

The full text for all H-statements is displayed in section 16.

**SECTION 4: First aid measures** 

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

4.1. Description of first aid measures

Move to fresh air. Call a physician if symptoms develop or persist. Inhalation

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if Eye contact

Exposure may cause temporary irritation, redness, or discomfort.

irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and

delayed

Treat symptomatically.

4.3. Indication of any immediate medical attention and special treatment needed

**SECTION 5: Firefighting measures** 

Will burn if involved in a fire. General fire hazards

5.1. Extinguishing media

Suitable extinguishing

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

media

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising

from the substance or mixture

During fire, gases hazardous to health may be formed such as: Carbon oxides. Nitrogen Oxides.

Phosphorus oxides. Sulphur oxides.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting

procedures

Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials. Specific methods

**SECTION 6: Accidental release measures** 

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

personnel

For emergency responders

Follow standard emergency procedure. Avoid breathing mist/vapours. Wear appropriate personal

protective equipment (See Section 8).

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8 of the SDS.

Avoid discharge into drains, water courses or onto the ground. 6.2. Environmental precautions

### 6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

#### 6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

# **SECTION 7: Handling and storage**

# 7.1. Precautions for safe

handling

Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Avoid prolonged exposure. Ensure safe systems of work or equivalent arrangements are in place to manage risks. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

# 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see section 10 of the SDS).

7.3. Specific end use(s) Automotive applications.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### Occupational exposure limits

Spain, Occupational Exposure Limits

Product	Туре	Value	Form	
Oil mist, mineral	STEL	10 mg/m3	Mist.	
	TWA	5 mg/m3	Mist.	

**Biological limit values** 

No biological exposure limits noted for the ingredient(s).

Recommended monitoring

procedures

Follow standard monitoring procedures.

#### Derived no effect levels (DNELs)

General Population			
Components	Value	Assessment factor	Notes
1,3,4-thiadiazolidine-2,5-dithione, Reaction	Products With Hydrogen Per	oxide And Tert-nonanethic	ol (CAS 91648-65-6)
Long-term, Systemic, Dermal	3,125 mg/kg bw/day	400	Repeated dose toxicity
Long-term, Systemic, Inhalation	1,087 mg/m3	100	Repeated dose toxicity
Long-term, Systemic, Oral	0,625 mg/kg bw/day	400	Repeated dose toxicity
Polysulphides, di-tert-Bu (CAS 68937-96-2	)		
Long-term, Systemic, Dermal	1,67 mg/kg	600	Repeated dose toxicity
Long-term, Systemic, Inhalation	0,58 mg/m3	150	Repeated dose toxicity
Long-term, Systemic, Oral	0,167 mg/kg bw/day	600	Repeated dose toxicity
and salted by amines, C12-14- tert-alkyl (C Long-term, Local, Dermal Long-term, Systemic, Dermal Long-term, Systemic, Inhalation Long-term, Systemic, Oral Short-term, Local, Dermal	CAS -) 160 µg/cm2 6,25 mg/kg 1,09 mg/m3 0,25 mg/kg 160 µg/cm2	15 240 60 600 15	Skin sensitisation Repeated dose toxicity Repeated dose toxicity Repeated dose toxicity Skin sensitisation
<u>Workers</u>			
Components	Value	Assessment factor	Notes
1,3,4-thiadiazolidine-2,5-dithione, Reaction	Products With Hydrogen Per	oxide And Tert-nonanethic	ol (CAS 91648-65-6)
Long-term, Systemic, Dermal	6,25 mg/kg bw/day	200	Repeated dose toxicity
Long-term, Systemic, Inhalation	4,408 mg/m3	50	Repeated dose toxicity
Polysulphides, di-tert-Bu (CAS 68937-96-2	)		
Long-term, Systemic, Dermal	4,67 mg/kg	300	Repeated dose toxicity

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl (CAS -)

Long-term, Local, Dermal	160 μg/cm2	15	Skin sensitisation
Long-term, Systemic, Dermal	12,5 mg/kg	120	Repeated dose toxicity
Long-term, Systemic, Inhalation	4,28 mg/m3	30	Repeated dose toxicity
Short-term, Local, Dermal	160 µg/cm2	15	Skin sensitisation

### Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
1,3,4-thiadiazolidine-2,5-dithione, Reactio	n Products With Hydrogen F	Peroxide And Tert-nonaneth	iol (CAS 91648-65-6)
Freshwater	0,041 mg/l	1000	
Marine water	0,004 mg/l	10000	
Secondary poisoning	6,67 mg/kg	300	Oral
Sediment (freshwater)	380,62 mg/kg		
Sediment (marine water)	38,06 mg/kg		
Soil	308,96 mg/kg		
STP	8000 mg/l	1	
Polysulphides, di-tert-Bu (CAS 68937-96-2	2)		
Freshwater	0,24 μg/l	1000	
Marine water	0,024 µg/l	10000	
Secondary poisoning	6,66 mg/kg	300	Oral
Sediment (freshwater)	0,94 mg/kg		
Sediment (marine water)	0,094 mg/kg		
Soil	18,1 μg/kg		
STP	4,51 mg/l	10	

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl (CAS -)

Freshwater	2,4 μg/l	50	
Marine water	0,24 µg/l	500	
Secondary poisoning	10 mg/kg	300	Oral
Sediment (freshwater)	12,9 µg/kg		
Sediment (marine water)	1,29 µg/kg		
Soil	1,17 µg/kg		
STP	24.33 mg/l	100	

#### 8.2. Exposure controls

# Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

# Individual protection measures, such as personal protective equipment

#### **General information**

The choice of the most appropriate personal protective equipment in each case depends, among other factors, on the nature of the work to be done and the conditions in which it is carried out. To do so, take the relevant risk analyses into account and consult the safety officer and/or equipment suppliers, if necessary, to make the right choice. In any case, the equipment must comply with the currently applicable CEN standards. Workers using this equipment must have received the required training in the use of the same.

#### Eye/face protection

Wear safety glasses with side shields (or goggles). Eye protection should meet standard EN 166.

#### Skin protection

#### - Hand protection

Wear appropriate chemical resistant gloves. Always wear chemical-resistant protective gloves that comply with EN 374 to handle this product. Observe good industrial hygiene practices and wash gloves with soap and water before removing them. Assess the working conditions and always consult your glove supplier for information on the most suitable type of glove for each task and the required material, thickness, and breakthrough time specifications. The use of type-B gloves in accordance with EN 374 is recommended as a minimum protection against intermittent or splash contact. Consult your supplier to find the most suitable option for the product in question. The requirements of EN 388 must be taken into account for applications involving mechanical hazards with the risk of abrasion or incision. The requirements outlined in EN 407 must be taken into consideration for tasks involving thermal hazards.

#### - Other

Wear suitable protective clothing.

# Respiratory protection

In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P2) can be used. Respiratory protection should meet standard EN 14387. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Appropriate respirator selection should be made by a qualified professional.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Always observe good personal hygiene measures, such as washing after handling the material Hygiene measures

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

**Environmental exposure** 

controls

Product should not reach the environment through wastewater or sewage. Measures to take in case of accidental release can be found in Section 6 of this SDS. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and chemical properties

**Physical state** Liquid. **Form** Liquid. Colour 4 Typical

Odour Property has not been measured.

Melting point/freezing point

**Boiling point or initial boiling** 

point and boiling range

Property has not been measured

-18 °C (-0,4 °F) Typical

Will burn if involved in a fire. **Flammability** 

Lower and upper explosion limit

Explosive limit - lower (%) Explosive limit – upper

(%)

Property has not been measured Property has not been measured

Flash point 210 °C (410 °F) Typical

**Auto-ignition temperature** Property has not been measured Property has not been measured **Decomposition temperature** Property has not been measured рH 27,5 mm<sup>2</sup>/s Typical (100 °C (212 °F)) Kinematic viscosity 369 mm<sup>2</sup>/s Typical (40 °C (104 °F))

Solubility

Insoluble in water Solubility (water)

**Partition coefficient** Property has not been measured

(n-octanol/water) (log value)

Property has not been measured Vapour pressure

Density and/or relative density

Density 0,909 g/cm3 Typical

Relative density Property has not been measured Property has not been measured Vapour density **Particle characteristics** Not applicable, material is a liquid.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No relevant additional information available.

9.2.2. Other safety No relevant additional information available.

characteristics

# SECTION 10: Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. 10.1. Reactivity

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Contact with incompatible materials.

Strong oxidising agents. 10.5. Incompatible materials

No hazardous decomposition products are known. 10.6. Hazardous

decomposition products

# **SECTION 11: Toxicological information**

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

**Skin contact** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Ingestion** May cause discomfort if swallowed.

Symptoms Exposure may cause temporary irritation, redness, or discomfort.

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** 

Product Species Test Results

NAVIGATOR GL-5 85W-140 (CAS Mixture)

Acute Dermal

ATE > 5000 mg/kg bw/day

Oral

ATE > 5000 mg/kg bw/day

Components Species Test Results

Polysulphides, di-tert-Bu (CAS 68937-96-2)

<u>Acute</u> Dermal

LD50  $\Rightarrow$  2000 mg/kg

Oral

LD50 >= 2000 mg/kg

**Skin corrosion/irritation**Based on available data, the classification criteria are not met. **Serious eye damage/eye**Based on available data, the classification criteria are not met.

irritation

**Respiratory sensitisation**Due to partial or complete lack of data the classification is not possible.

**Skin sensitisation**The product contains a small amount of sensitising substance which may provoke an allergic

reaction among sensitive individuals.

Germ cell mutagenicity

Due to partial or complete lack of data the classification is not possible.

Carcinogenicity

Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

Highly refined mineral oil (CAS -) 3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity**Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity -

single exposure

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

Specific target organ toxicity -

repeated exposure

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

**Aspiration hazard**Due to partial or complete lack of data the classification is not possible.

Mixture versus substance

information

No information available.

11.2. Information on other hazards

**Endocrine disrupting** 

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

Other information Prolonged or repeated contact with used oil may cause serious skin diseases.

Unless otherwise stated, the health effects of this product are assessed on the basis of the

applicable calculation methods for classification.

**SECTION 12: Ecological information** 

**12.1. Toxicity**Based on available data, the classification criteria are not met for hazardous to the aquatic

environment.

Components Species Test Results

Polysulphides, di-tert-Bu (CAS 68937-96-2)

Aquatic Acute

Crustacea EC50 Daphnia magna 0,24 mg/l, 48 hours

12.2. Persistence and

degradability

No data is available on the degradability of this product.

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959813 Version #: 01 Revision date: - Issue date: 18-October-2021

**12.3. Bioaccumulative potential** No data available for this product.

Partition coefficient n-octanol/water (log Kow)

Polysulphides, di-tert-Bu (CAS 68937-96-2) 5,6, (20 °C)

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

assessment

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

**12.7. Other adverse effects**Oil spills are generally hazardous to the environment.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

**EU waste code**The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

**Special precautions**Dispose in accordance with all applicable regulations.

# **SECTION 14: Transport information**

#### **ADR**

**14.1. UN number** Not regulated as dangerous goods.

14.2. UN proper shipping

name

Not regulated as dangerous goods.

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

Hazard No. (ADR) Not assigned.

Tunnel restriction code

14.4. Packing group Not assigned.

14.5. Environmental hazards No.

**14.6. Special precautions** Not assigned.

for user

RID

**14.1. UN number** Not regulated as dangerous goods.

**14.2. UN proper shipping** Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards No.

**14.6. Special precautions** Not assigned.

for user

ADN

14.1. UN number14.2. UN proper shippingNot regulated as dangerous goods.Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards No.

14.6. Special precautions Not assigned.

for user

#### IATA

**14.1. UN number**Not regulated as dangerous goods. **14.2. UN proper shipping**Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards No.

**14.6. Special precautions** Not assigned.

for user

**IMDG** 

14.1. UN number Not regulated as dangerous goods.14.2. UN proper shipping Not regulated as dangerous goods.

name

14.3. Transport hazard class(es)

Class Not assigned.

Subsidiary risk

**14.4. Packing group** Not assigned.

14.5. Environmental hazards

Marine pollutant

No

EmS Not assigned. 14.6. Special precautions Not assigned.

for user

14.7. Maritime transport in bulk Not applicable.

according to IMO instruments

# **SECTION 15: Regulatory information**

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

# **EU regulations**

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

#### **Authorisations**

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended Not listed.

#### Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

#### Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended.

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as

amended.

National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as

amended.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

#### **SECTION 16: Other information**

#### List of abbreviations

ATE: Acute toxicity estimate.

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland

Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

IMO: International Maritime Organization.

LD50: Lethal Dose, 50%.

PBT: Persistent, bioaccumulative and toxic.

REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals). RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit. TWA: Time Weighted Average Value.

vPvB: Very persistent and very bioaccumulative.

References

**ECHA CHEM** 

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under

Sections 2 to 15

H302 Harmful if swallowed.

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.

**Training information** 

Follow training instructions when handling this material.

#### Disclaimer

This Safety Data Sheet (SDS) refers exclusively to the substance/product specified in section 1 of this document.

The information provided in this SDS has been obtained according to the best information available on the basis of technical data that is considered reliable at the time of its preparation, and in accordance with the legal requirements in force concerning classification, packaging and labelling of dangerous substances, not involving the granting of any express or implied warranty or on the accuracy of the information contained therein or concerning its suitability for a particular use or specification.

The purchaser as the recipient of the substance/product specified in section 1 of this document to which this Safety Data Sheet (SDS) refers, is responsible for evaluating the information contained in the SDS, and for verifying that it is correct and appropriate for the intended use of the substance/product specified in section 1 of this document.

The purchaser, as the recipient of the substance/product specified in section 1 of this document referred to in this Safety Data Sheet (SDS) is also responsible for adequately managing the risks thereof in its place of work. Consequently, the purchaser is obliged, regarding its workers and representatives, as well as any other person who may handle, use or be exposed to the substance/product specified in section 1 of this document in their place of work to (i) facilitate access to the relevant information in this Safety Data Sheet (SDS), transmitting for this purpose the relevant indications included in the SDS, especially those relating to the risks of the product/substance specified in section 1 of this document for the safety and health of persons and for the environment. As well as (ii) ensuring that they receive and have adequate training in handling, using or being exposed to the product/substance specified in section 1 of this document in accordance with the guidance contained in the SDS.

Accordingly, no liability for damages to the recipient of the SDS arising out of the use of the information or the use of the substance/product specified in section 1 of this document shall be accepted.