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 GIANT 1020 SAE 10W

Registration number -

UFI: 0Q38-HGRQ-QTJN-4CRT

Synonyms None.

Product code RP_1163B

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

Identified uses Automotive applications.

Uses advised against 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

Fax +34 902303145

Email address FDSRLESA@repsol.com

1.4. Emergency telephone number

Toxicology Information Service + 34 91 562 04 20

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

Health hazards

Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms



Signal word Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

Prevention

P264 Wash thoroughly after handling.

P280 Wear eye protection/face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

Storage Not assigned.

Disposal Not assigned.

Supplemental information on the label None.

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.	Index No.	Notes
Mineral oil*	1,2 - 3,2	- / -	-	-	
Classification: Asp. Tox. 1;H304					
Calcium branched alkyl phenate sulphide (overbased)	0,6 - 1,6	- / -	-	-	
Classification: Aquatic Chronic 4;H413					
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0,6 - 1,3	84605-29-8 / 283-392-8	01-2119493626-26-XXXX	-	
Classification: Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411					
Specific Concentration Limits: Skin Irrit. 2;H315: 6.25 % <= C <= 100 %, Eye Dam. 1;H318: 12.5 % < C <= 100 %, Eye Irrit. 2;H319: 10 % < C <= 12.5 %					
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	0,6 - 1,3	68457-79-4 / 270-608-0	01-2119493628-22-XXXX	-	
Classification: Skin Irrit. 2;H315, Eye Dam. 1;H318, Aquatic Chronic 2;H411					
Specific Concentration Limits: Skin Irrit. 2;H315: C > 15 %, Eye Dam. 1;H318: C >= 3 %, Eye Irrit. 2;H319: 1 % <= C < 3 %					
phenol, dodecyl-, branched	< 0,1	121158-58-5 / 310-154-3	01-2119513207-49-XXXX	604-092-00-9	
Classification: Skin Corr. 1C;H314, Eye Dam. 1;H318, Repr. 1B;H360F, Aquatic Acute 1;H400(M=10), Aquatic Chronic 1;H410(M=10)					

List of abbreviations and symbols that may be used above

M: M-factor

Composition comments

*The mineral oil contained may be described by one or more of the following:
CAS 64742-54-7, Registration No. 01-2119484627-25, Destillates (petroleum), hydrotreated heavy paraffinic; - CAS 64742-65-0, Registration No. 01-2119471299-27, Distillates (petroleum), solvent dewaxed heavy paraffinic; - CAS 64742-55-8, Registration No. 01-2119487077-29, Distillates (petroleum), hydrotreated light naphthenic; - CAS 64742-56-9, Registration No. 01-2119480132-48, Distillates (petroleum), solvent-dewaxed light paraffinic.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in 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

Inhalation

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

Skin contact

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

Eye contact

Flush eyes immediately with large amounts of water. Remove contact lenses, if present and easy to do. Continue to rinse for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards Will burn if involved in a fire.

5.1. Extinguishing media

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

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 monoxide, carbon dioxide, oxides of sulphur, zinc and phosphorus.

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.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Wear appropriate personal protective equipment. Follow standard emergency procedure.

For emergency responders Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

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

6.3. Methods and material for containment and cleaning up 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. Avoid contact with eyes, skin, and clothing. Ensure safe systems of work or equivalent arrangements are in place to manage risks. 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

Components	Type	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
phenol, dodecyl-, branched (CAS 121158-58-5)			
Long-term, Systemic, Dermal	0,075 mg/kg bw/day	200	Developmental toxicity

Long-term, Systemic, Inhalation	0,79 mg/m3	50	Developmental toxicity
Long-term, Systemic, Oral	0,075 mg/kg bw/day	200	Developmental toxicity
Short-term, Systemic, Dermal	50 mg/kg bw/day	100	Acute toxicity
Short-term, Systemic, Inhalation	13,26 mg/m3	250	Acute toxicity
Short-term, Systemic, Oral	1,26 mg/kg bw/day	1000	Acute toxicity
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (CAS 68457-79-4)			
Long-term, Systemic, Dermal	5,93 mg/kg bw/day	240	Repeated dose toxicity
Long-term, Systemic, Inhalation	2,06 mg/m3	60	Repeated dose toxicity
Long-term, Systemic, Oral	0,24 mg/kg bw/day	600	Repeated dose toxicity

Workers

Components	Value	Assessment factor	Notes
phenol, dodecyl-, branched (CAS 121158-58-5)			
Long-term, Systemic, Dermal	0,25 mg/kg bw/day	60	Developmental toxicity
Short-term, Systemic, Inhalation	44,18 mg/m3	75	Acute toxicity
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (CAS 68457-79-4)			
Long-term, Systemic, Dermal	11,87 mg/kg bw/day	120	Repeated dose toxicity
Long-term, Systemic, Inhalation	8,13 mg/m3	30	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
phenol, dodecyl-, branched (CAS 121158-58-5)			
Freshwater	0,074 µg/l	50	
Marine water	0,007 µg/l	500	
Secondary poisoning	4 mg/kg	300	Oral
Sediment (freshwater)	0,226 mg/kg		
Sediment (marine water)	0,027 mg/kg		
Soil	0,118 mg/kg		
STP	100 mg/l	10	
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (CAS 68457-79-4)			
Freshwater	4 µg/l	100	
Marine water	4,6 µg/l	10000	
Secondary poisoning	10,67 mg/kg	300	Oral
Sediment (freshwater)	0,024 mg/kg		
Sediment (marine water)	0,002 mg/kg		
Soil	0,002 mg/kg		
STP	100 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. Provide eyewash station.

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 suitable gloves tested to EN374. 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.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	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. 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Form	Liquid.
Colour	< 4
Odour	Characteristic.
Odour threshold	No data available (*)
Melting point/freezing point	< -24 °C (< -11,2 °F)
Boiling point or initial boiling point and boiling range	No data available (*)
Flammability	Will burn if involved in a fire.
Lower and upper explosion limit	
Explosive limit - lower (%)	Property has not been measured.
Explosive limit – upper (%)	Property has not been measured.
Flash point	> 200 °C (> 392 °F)
Auto-ignition temperature	Property has not been measured.
Decomposition temperature	Property has not been measured.
pH	No data available (*)
Kinematic viscosity	6,6 mm²/s (100 °C (212 °F)) 39 mm²/s (40 °C (104 °F))
Solubility	
Solubility (water)	Property has not been measured.
Partition coefficient (n-octanol/water) (log value)	Property has not been measured.
Vapour pressure	Property has not been measured.
Density and/or relative density	
Density	0,884 g/cm³ (20 °C (68 °F))
Relative density	No data available (*)
Vapour density	Property has not been measured.
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 characteristics

Evaporation rate	No data available (*)
Viscosity	No data available (*)
Other safety characteristics	(*) No data available at the time of writing or because it is not applicable due to the nature and danger of the product.

SECTION 10: Stability and reactivity

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

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.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

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	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

11.1. Information on toxicological effects

Acute toxicity

Product	Species	Test Results
GIANT 1020 SAE 10W (CAS Mixture)		
Acute		
Dermal		
ATE		> 5000 mg/kg
Oral		
ATE		> 5000 mg/kg

Components	Species	Test Results
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (CAS 84605-29-8)		
Acute		
Dermal		
LD50	Rat	> 2002 mg/kg, 25 Hours
Oral		
LD50	Rat	3100 mg/kg
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (CAS 68457-79-4)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	2000 - 5000 mg/kg

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity	Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

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

Reproductive toxicity	The product contains a small amount of substance that may damage fertility.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard	Based on available data, the classification criteria are not met.

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.

This material contains one or more components that have a branched alkylphenol impurity that is highly toxic to aquatic organisms (disclosed in Section 3). The components containing the impurity have been tested and are not toxic to aquatic organisms. Therefore the data in Section 3 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity.

Components		Species	Test Results
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (CAS 84605-29-8)			
Aquatic			
Acute			
Crustacea	EL50	Daphnia magna	23 mg/l, 48 hours
	NOELR	Daphnia magna	10 mg/l, 48 hours
Fish	LL50	Oncorhynchus mykiss	4,5 mg/l, 96 hours
	NOEL	Oncorhynchus mykiss	1,8 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) Not available.

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. 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 Not assigned.
14.4. Packing group Not assigned.
14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

RID

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 -
14.4. Packing group Not assigned.
14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

ADN

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 -
14.4. Packing group Not assigned.
14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

IATA

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 -
14.4. Packing group Not assigned.
14.5. Environmental hazards No.
14.6. Special precautions for user Not assigned.

IMDG

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 -
14.4. Packing group Not assigned.
14.5. Environmental hazards
Marine pollutant No.
EmS Not assigned.
14.6. Special precautions for user Not assigned.

14.7. Maritime transport in bulk according to IMO instruments Not applicable.

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

Not listed.

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

Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts (CAS 68457-79-4)

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

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.
ATE: Acute toxicity estimate.
CAS: Chemical Abstract Service.
CEN: European Committee for Standardization.
EL50: Effective level, 50%.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
IMO: International Maritime Organization.
LD50: Lethal Dose, 50%.
LL50: Lethal level, 50%.
NOEL: No Observed Effect Level.
NOELR: No Observed Effect Loading Rate
PBT: Persistent, bioaccumulative and toxic.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TWA: Time Weighted Average.
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	H304 May be fatal if swallowed and enters airways. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation.

H318 Causes serious eye damage.
H360F May damage fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

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.