eni MX 5002

Safety Data Sheet
According to Regulation (EC) No. 453/2010

Revision date: **03/10/2013** **Version: 3.0**

Supersedes: **05/04/2011**

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

1.1. Product identifier

Product form	: Mixture
Trade name	: eni MX 5002
EC no	: N/A
CAS No	: N/A
REACH registration No	: N/A
Product code	: 5005
Formula	: A004-2012
Product group	: Trade product

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

1.2.1. Relevant identified uses

Main use category	: Industrial use
Industrial/Professional use spec	: Non-dispersive use
Use of the substance/mixture	: Additive for lubricants
Use of the substance/mixture	: Additive for lubricants ---- Do not use the product for any purposes that have not been advised by the manufacturer. In that case, the user could be exposed to unpredictable risks.
Function or use category	: Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ENI S.p.A.
P.le E. Mattei 1 - 00144 ROMA Italy
Tel (+39) 06 59821
www.eni.com

Contact:
Refining & Marketing Division
Via Laurentina 449 00142 ROMA Italy
Tel (+39) 06 59881 Fax (+39) 06 59885700

Competent person responsible for the Safety Data Sheet (Reg. EC nr. 1907/2006): qualt-t@eni.com

1.4. Emergency telephone number

Emergency number	: CNIT +39 0382 24444 (24h) (IT + EN)

Poison centre (UK):
National Poisons Information Service Edinburgh (24h)
(+44) 844 892 0111
0870 600 6266 (UK only)
(Source: UN-WHO)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 2	H411

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R41
Xi; R43
N; R51/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

Severely irritant to eyes. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS07 GHS09

CLP Signal word : Danger

Hazardous ingredients and/or with relevant occupational exposure limits : Contains: Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)-, Dialkyl dithiophosphate ester, N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine

Hazard statements (CLP) : H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (CLP) : P273 - Avoid release to the environment
P280 - Wear protective clothing, gloves and eye/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P501 - Dispose of contents/container to according to national or local regulations

Other:

General advice : (Not applicable - Classified as dangerous according to (EC) No 1272/2008)

2.3. Other hazards (not relevant for classification)

Physical/chemical	: This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels.
Health	: If the product is handled or used at high temperature, contact with hot product or vapours may cause burns.,Any material in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment.,Do not wait for symptoms to develop.
Environment	: None.
Contaminants	: A potential risk may arise from the release of hydrogen sulfide, when the product is stored or handled at high temperature (> 60 °C).,This reaction is started and accelerated by the presence of water and moisture,Hydrogen sulfide may accumulate in the tanks or other confined spaces, with danger to the workers that enter the spaces. In these cases overexposure to hydrogen sulfide may cause irritation to airways, nausea, dizziness, loss of consciousness and death.

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Composition/information on ingredients	: Additive mixture in severely refined mineral base oil
Hazardous ingredients and/or with relevant occupational exposure limits	: See table,The substances identified as "air contaminants" are substances that are not ingredients or constituents, but can be released in special circumstances from the product. Their potential presence may be relevant for health (i.e. OEL), or other reasons.

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- (Main component)	(CAS No) 4259-15-8 (EC no) 224-235-5 (REACH-no) 01-2119493635-27	50 - 74,9	Xi; R41 N; R51/53
Mineral base oil, severely refined (Component)		9,99 - 14,99	Not classified
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters (Additive)	(CAS No) 125643-61-0 (EC no) 406-040-9 (EC index no) 607-530-00-7 (REACH-no) 01-0000015551-76	9,99 - 14,99	R53
Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (Additive)	(CAS No) 68921-45-9 (EC no) 272-940-1 (EC index no) N/D (REACH-no) N/D	9,99 - 14,99	R52/53

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine (Additive)	(CAS No) 80584-90-3 + 80595-74-0 (EC no) 279-503-4 + 279-514-4 (EC index no) N/A (REACH-no) N/A	3 - 4,99	Xi; R38 Xi; R43 N; R51/53
Dialkyl dithiophosphate ester (Additive)	(CAS No) 268567-32-4 (EC no) 434-070-2 (EC index no) N/A (REACH-no) N/A	2,49 - 2,99	Xi; R41 Xi; R43 R52/53
Hydrogen sulphide (Air contaminant)	(CAS No) 7783-06-4 (EC no) 231-977-3 (EC index no) 016-001-00-4	< 0,1	F+; R12 T+; R26 N; R50

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- (Main component)	(CAS No) 4259-15-8 (EC no) 224-235-5 (REACH-no) 01-2119493635-27	50 - 74,9	Eye Dam. 1, H318 Aquatic Chronic 2, H411
Mineral base oil, severely refined (Component)		9,99 - 14,99	Not classified
3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters (Additive)	(CAS No) 125643-61-0 (EC no) 406-040-9 (EC index no) 607-530-00-7 (REACH-no) 01-0000015551-76	9,99 - 14,99	Aquatic Chronic 4, H413
Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (Additive)	(CAS No) 68921-45-9 (EC no) 272-940-1 (EC index no) N/D (REACH-no) N/D	9,99 - 14,99	Aquatic Chronic 3, H412
N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine (Additive)	(CAS No) 80584-90-3 + 80595-74-0 (EC no) 279-503-4 + 279-514-4 (EC index no) N/A (REACH-no) N/A	3 - 4,99	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Dialkyl dithiophosphate ester (Additive)	(CAS No) 268567-32-4 (EC no) 434-070-2 (EC index no) N/A (REACH-no) N/A	2,49 - 2,99	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Hydrogen sulphide (Air contaminant)	(CAS No) 7783-06-4 (EC no) 231-977-3 (EC index no) 016-001-00-4	< 0,1	Flam. Gas 1, H220 Press. Gas Acute Tox. 2 (Inhalation), H330 Aquatic Acute 1, H400

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Seek medical attention in all cases of serious burns.

First-aid measures after inhalation	:	In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. If casualty is unconscious and not breathing: ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical advice. If the casualty is breathing: Place in the recovery position. Administer oxygen if necessary. In case of exposure to H2S, bring the victim to a hospital as soon as possible. If necessary use artificial respiration. Give oxygen, if available. See also Section 16, "Other information".
First-aid measures after skin contact	:	Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If inflammation or irritation persists, seek medical advice. In case of contact with hot product, cool affected part with plenty of cold water, and cover with gauze or clean cloth. Call a doctor or bring to an hospital. Do not use salves or ointments, unless directed by doctor. Body hypothermia must be avoided. Do not put ice on the burn.
First-aid measures after eye contact	:	Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. Remove contact lenses, if present and easy to do so. Get medical attention from a specialist, or take to a hospital. In case of contact with hot product, cool affected part with plenty of cold water, and cover with gauze or clean cloth. Call a doctor or bring to an hospital. Do not use salves or ointments, unless directed by doctor. Immediately obtain specialist medical assessment and treatment for the casualty.
First-aid measures after ingestion	:	Do not induce vomiting to avoid aspiration into the lungs. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to an hospital. If the casualty is inconscious, place in the recovery position. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Do not give anything by mouth to an unconscious person.

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

Symptoms / injuries (general indications)	:	Risk of serious damage to eyes. May cause sensitization by skin contact.
Symptoms/injuries after inhalation	:	None under normal use. Inhalation of fumes or oil mists produced at high temperatures may cause irritation of the respiratory tract.
Symptoms/injuries after skin contact	:	Prolonged and repeated skin contact may cause reddening, irritation and dermatitis, due to a defatting effect. May produce an allergic reaction.
Symptoms/injuries after eye contact	:	Causes serious eye irritation.
Symptoms/injuries after ingestion	:	Accidental ingestion of small quantities of the product may cause irritation, nausea and gastric disturbances. Taking into account the taste of the product, however, ingestion of dangerous quantites is very unlikely.
Symptoms/injuries upon intravenous administration	:	No information available.
Chronic symptoms	:	None to be reported, according to the present EU regulations.

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

If there is any suspicion of inhalation of H2S (hydrogen sulphide). Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary. The casualty should be sent immediately to hospital.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Small-size fires: carbon dioxide, dry chemicals, sand or earth. Large fires: foam. Other extinguishing gases (according to regulations).
Unsuitable extinguishing media	:	Do not use water jets. They could cause splattering, and spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels.
Explosion hazard	:	In case of losses from pressurized circuits, the sprays may form mists. Take into account that in this case the lower explosion limit for mists is about 45 g/m³ of air.
Combustion products	:	Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, NOx, H2S and SOx,Oxygenated compounds (aldehydes, etc.),ZnOx,POx.

5.3. Advice for firefighters

Firefighting instructions	:	Stop or contain leak at the source, if safe to do so. If possible, move containers and drums away from danger area. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.
Special protective equipment for firefighters	:	Personal protection equipment for firefighters (see also sect. 8). Self-contained breathing apparatus.
Other information	:	In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid accidental sprays on hot surfaces or electrical contacts. Avoid direct contact with released material. Keep upwind.

6.1.1. For non-emergency personnel

Protective equipment	:	See Section 8.
Emergency procedures	:	Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. In those cases when the presence of dangerous amounts of H2S in the leaked/spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training.

6.1.2. For emergency responders

Protective equipment	:	Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H2S). A Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
Emergency procedures	:	Notify local authorities according to relevant regulations.

6.2. Environmental precautions

Clear spills immediately. Do not let the product flow into sewers, water courses or underground spaces. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. The site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

6.3. Methods and material for containment and cleaning up

For containment	:	Soil. If necessary dike the product with dry earth, sand or similar non-combustible materials. When inside buildings or confined spaces, ensure adequate ventilation. Absorb spilled product with suitable non-combustible materials. Collect free liquid and waste materials in suitable waterproof and oil resistant containers. Clean the contaminated area. Dispose of in accordance with relevant local regulations. If it is necessary to store any contaminated materials for safe disposal, only suitable containers (airtight, labelled, sealed, waterproof, earthed and bonded) should be used. Water: Product which is denser than water will sink to the bottom, and usually no intervention will be feasible. If possible, collect the product and contaminated materials with mechanical means, and store/dispose of according to relevant regulations. In special circumstances, the product may momentarily float. In this case, contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities.
Other information	:	Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Concentration of H2S in tank/container headspaces may reach hazardous values, especially in case of prolonged storage. This situation is especially relevant for those operations which involve direct exposure to the vapours in the interior. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. As H2S has a density greater than ambient air, a possible exception may regard the build-up of dangerous concentrations in specific spots, like trenches, depressions or confined spaces. In all these circumstances, however, the correct actions should be assessed on a case-by-case basis. See also Section 16, "Other information".

6.4. Reference to other sections

Refer to chapter 16.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed. During transfer and mixing operations, ensure that all equipment is correctly grounded. Avoid the build-up of electric charges. The vapour is heavier than air. Keep away from heat/sparks/open flames/hot surfaces. Storage area layout, tank design, electrical equipment and wiring must comply with the relevant safety regulations, according to the specific risk rating of the area. Do not use electrical equipment (mobile phones etc.) not approved for use, according to the risk rating of the area. Do not use compressed air for filling, discharging, or handling operations. Use and store only outdoors or in a well-ventilated area. Use adequate personal protective equipment as needed. Avoid release to the environment. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned. The product may release Hydrogen Sulphide: a specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content, flammability, and the presence of sulphur compounds. See also Section 16, "Other information".
Handling temperature	: ≤ 55 °C If direct heat is applied to improve material flow, use care to avoid localized overheating and possible product degradation and container overpressure.
Hygiene measures	: Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in dry, well ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.
Incompatible products	: Keep away from: strong oxidants. Water or moisture.
Storage temperature	: ≤ 50 °C Excessive heating above the maximum recommended handling and storage temperature may cause degradation of the substance and evolution of irritant vapours and fumes
Storage area	: Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
Packages and containers:	: If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product. Store in a well-ventilated place. Keep containers tightly closed and properly labelled. Protect from the sunlight. Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.
Packaging materials	: For containers, or container linings use materials specifically approved for use with this product. Recommended materials for containers, or container linings use mild steel, stainless steel. Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer. Do not cut, weld, bore, burn or incinerate emptied containers, unless they have been cleaned and declared safe.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Mineral base oil, severely refined		
Austria	MAK (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Belgium	Limit value (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Italy - Portugal - USA ACGIH	ACGIH TLV®-TWA (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Italy - Portugal - USA ACGIH	ACGIH TLV®-STEL (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
USA NIOSH	NIOSH REL (STEL) (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
USA OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Spain	VLA-ED (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Spain	VLA-EC (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
The Netherlands	MAC TGG 8h (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
United Kingdom	WEL TWA (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
United Kingdom	WEL STEL (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Denmark	Grænseværdi (langvarig) (mg/m³)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Denmark	Grænseværdi (kortvarig) (mg/m³)	2 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Hungary	AK-érték	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Sweden	Nivågränsvärde (NVG) (mg/m3)	1 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Sweden	Kortidsvärde (KTV) (mg/m3)	3 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Canada (Quebec)	VECD (mg/m³)	10 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)
Canada (Quebec)	VEMP (mg/m³)	5 mg/m³ (Mineral base oil mist, severely refined, DMSO <3% m/m)

Hydrogen sulphide (7783-06-4)		
EU	IOELV TWA (ppm)	5 ppm (air contaminants) (Dir 2009/161/CE)
EU	IOELV STEL (ppm)	10 ppm (air contaminants) (Dir 2009/161/CE)
Austria	MAK (ppm)	10 ppm (air contaminants)
Austria	MAK Short time value (ppm)	10 ppm (air contaminants)
Belgium	Limit value (ppm)	10 ppm (air contaminants)
Belgium	Short time value (ppm)	15 ppm (air contaminants)
France	VLE (ppm)	5 ppm (air contaminants)
France	VME (ppm)	10 ppm (air contaminants)
Germany	TRGS 900 Occupational exposure limit value (ppm)	5 ppm (air contaminants)
Germany	TRGS 900 Limitation of exposure peaks (ppm)	10 ppm (air contaminants)
Italy - Portugal - USA ACGIH	ACGIH TLV®-TWA (ppm)	1 ppm (air contaminants)
Italy - Portugal - USA ACGIH	ACGIH TLV®-STEL (ppm)	5 ppm (air contaminants)
USA NIOSH	NIOSH REL (STEL) (mg/m³)	10 mg/m³ (air contaminants)
USA OSHA	OSHA PEL (STEL) (mg/m³)	20 mg/m³ (air contaminants)
Spain	VLA-ED (ppm)	1 ppm (air contaminants)
Spain	VLA-EC (ppm)	5 ppm (air contaminants)
Switzerland	VLE (ppm)	10 ppm (air contaminants)
Switzerland	VME (ppm)	5 ppm (air contaminants)
The Netherlands	MAC TGG 8h (mg/m³)	2,3 mg/m³ (air contaminants)
United Kingdom	WEL TWA (ppm)	5 ppm (air contaminants)
United Kingdom	WEL STEL (ppm)	10 ppm (air contaminants)
Denmark	Grænseværdi (langvarig) (ppm)	10 ppm (air contaminants)
Denmark	Grænseværdi (kortvarig) (ppm)	20 ppm (air contaminants)
Hungary	CK-érték	14 mg/m³ (air contaminants)
Hungary	MK-érték	14 mg/m³ (air contaminants)
Poland	NDS (mg/m³)	10 mg/m³ (air contaminants)
Poland	NDSCh (mg/m³)	20 mg/m³ (air contaminants)
Sweden	Nivågränsvärde (NVG) (ppm)	10 ppm (air contaminants)
Sweden	kortidsvärde (KTV) (ppm)	15 ppm (air contaminants)
Canada (Quebec)	VECD (ppm)	10 ppm (air contaminants)
Canada (Quebec)	VEMP (ppm)	15 ppm (air contaminants)

Mineral base oil, severely refined	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	= 5,4 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO <3% m/m)
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	= 1,2 mg/m³/day (DNEL, Mineral base oil mist, severely refined, DMSO <3% m/m)

Monitoring methods	: Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts.,Refer to relevant legislation and in any case to the good practice of industrial hygiene.
Additional information	: Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

8.2. Exposure controls

Appropriate engineering controls	: Before entering storage tanks and commencing any operation in a confined area, carry out an adequate clean-up, and check the atmosphere for oxygen content, flammability, and the presence of sulphur compounds. See also Section 16, "Other information".
Personal protective equipment (for industrial or professional use)	: Face shield. Gloves. Protective clothing. Safety glasses. Safety shoes or boots. Combined gas/dust mask with filter type B/P2.

Hand protection	: When there is a risk of contact with the skin, use hydrocarbon-resistant, felt-lined gloves. Materials that are presumably adequate: nitrile (NBR) or neoprene with a protection index ≥ 5 (permeation time ≥ 240 mins). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard.
Eye protection	: When there is a risk of contact with the eyes, use safety goggles or other means of protection (face shield). If necessary, refer to national standards or to the EN 166 standard.
Skin and body protection	: Long-sleeved antistatic clothing, if necessary heat-resistant. If necessary, refer to the EN 340 and related standards, for definition of characteristics and perfomance according to the risk rating of the area. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated.
Respiratory protection	: Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: in presence of oil mists and if the product is handled without adequate containment means: use full or half-face masks with filter for mists/aerosols. In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with a filter for organic vapours, and H2S where applicable. (EN 136/140/145). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used.
Thermal hazard protection	: If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

Environmental exposure controls	: Do not discharge the product into the environment. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Onsite wastewater treatment required. Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.
Consumer exposure controls	: Not applicable.

8.3. Hygiene measures

General protective and hygienic measures	: Avoid contact with skin and eyes,Do not breathe vapours or mists.,Do not clean hands with dirty or oil-soaked rags.,Do not keep dirty rags in the overall pockets.,Do not drink, eat or smoke with dirty hands.,Wash hands with water and mild soap, do not use solvents or other irritant products which have a defatting effect on the skin.,Do not re-use clothes, if they are still contaminated.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Molecular mass	: Not applicable for mixtures
Colour	: Dark brown.
Odour	: Slight odour of petroleum.
Odour threshold	: There are no data available on the preparation/mixture itself.
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: Negligible.
Melting point	: No data available
Freezing point	: No data available
Boiling point	: ≥ 200 °C
Flash point	: ≥ 130 °C (ASTM D 93)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: ≤ 0,1 hPa (20 °C) (Mineral oil, ASTM D 5191) (CONCAWE, 2010)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1022 kg/m³ (ASTM D 4052)

Solubility	: Water: Immiscible and insoluble Organic solvent:Completely miscible
Log Pow	: Not applicable for mixtures
Log Kow	: No data available
Viscosity, kinematic	: 10,3 mm²/s (100 °C) (ASTM D 445)
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: ≥ 45 g/m³ (mineral oil mists)

9.2. Other information

VOC content : = 0 % (EU, CH)

The above data are typical values and do not constitute a specification.

SECTION 10: Stability and reactivity

10.1. Reactivity

This mixture does not offer any further hazard for reactivity, except what is reported in the following paragraphs.

10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling). Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard. A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass. Sensitivity to heat, friction or shock cannot be assessed in advance.

10.4. Conditions to avoid

Keep away from strong oxidizers. Keep away from open flames, hot surfaces and sources of ignition. Avoid the build-up of electrostatic charge. Avoid contact with water at temperature > 60 °C.

10.5. Incompatible materials

Strong oxidants. Water, humidity.

10.6. Hazardous decomposition products

Avoid heating the product over 60 °C (possible evolution of H2S). This reaction is started and accelerated by the presence of water and moisture.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met)

(according to composition)

eni MX 5002 (N/A)	
LD50 oral rat	≥ 2000 mg/kg bodyweight (Calculated data).
LD50 dermal rat	≥ 2000 mg/kg bodyweight (Calculated data).
LC50 inhalation rat (mg/l)	≥ 5 mg/l/4h (Calculated data).

Mineral base oil, severely refined	
LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rat	> 5000 mg/kg (OECD 402)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (OECD 403)

Dialkyl dithiophosphate ester (268567-32-4)	
LD50 oral rat	> 2000 mg/kg bodyweight OECD 423
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402)

N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine (80584-90-3 + 80595-74-0)	
LD50 oral rat	> 2000 mg/kg bodyweight OECD 423

3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters (125643-61-0)	
LD50 oral rat	≥ 2000 mg/kg bodyweight
LD50 dermal rat	≥ 2000 mg/kg bodyweight

Hydrogen sulphide (7783-06-4)	
ATE (gases)	100,000 ppm/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

(according to composition)
Prolonged and repeated skin contact may cause reddening, irritation and dermatitis, due to a defatting effect.

pH: Not applicable

Serious eye damage/irritation : Causes serious eye damage.

(according to composition)

pH: Not applicable

Respiratory or skin sensitisation : May cause an allergic skin reaction.

(according to composition)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

(according to composition)
This product does not contain any significant amounts of substances classified as mutagenic by the EU (in any case < 0.1 % wt)

Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition) None of the components of this product are listed as carcinogen by NTP, IARC, OSHA, EU or others. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346/92 (Nota L - Dir. 94/69/CE - Reg (CE) 1272/2008)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met) (according to composition) This product does not contain any significant amounts of substances classified as Toxic for Reproduction by the EU (in any case < 0.1 % wt)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)

3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters (125643-61-0)	
LOAEL (oral,rat)	= 5 mg/kg bw/day (28 d)

Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met) (according to composition)

Mineral base oil, severely refined	
LOAEL (oral,rat,90 days)	= 125 mg/kg bodyweight/day (OECD TG 408)

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met) Viscosity, kinematic: > 20,5 mm2/s (40 °C) (ASTM D 445)
Potential Adverse human health effects and symptoms	: Severely irritant to eyes. May cause sensitization by skin contact.
Other information	: None.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: According to the components, and by comparison with other products of the same type and composition, it is expected that this product has a toxicity for aquatic organisms between 1 and 10 mg/l, and must be regarded as Dangerous to the environment. An uncontrolled release to the environment may produce a contamination of different environmental compartments (soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.
Ecology - air	: This product has a low vapour pressure. A significant exposure may happen only if the product is used at high temperature, or in case of sprays and mists.
Ecology - water	: This product is not soluble in water. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment)

eni MX 5002 (N/A)	
LC50 fish 1	1 - 10 mg/l (estimated value)

eni MX 5002 (N/A)	
EC50 Daphnia 1	1 - 10 mg/l (estimated value)
ErC50 (algae)	1 - 10 mg/l (estimated value)

Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- (4259-15-8)	
LC50 fish 1	1 - 10 mg/l
EC50 Daphnia 1	1 - 10 mg/l OECD 202

Mineral base oil, severely refined	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)

Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (68921-45-9)	
LC50 fish 1	= 920 mg/l (96 h; read-across)
ErC50 (algae)	= 600 mg/l (OECD 201; 96h; Scenedesmus capricornutum; read-across)

Dialkyl dithiophosphate ester (268567-32-4)	
LC50 fish 1	= 38 mg/l (OECD 203; 96 h; Brachydanio rerio)
EC50 Daphnia 1	= 53 mg/l (OECD 202; 48h)
EC50 other aquatic organisms 2	> 100 mg/l (OECD 209; IC50 3h; bacteria)
ErC50 (algae)	= 79 mg/l (OECD 201; 72h)

N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine (80584-90-3 + 80595-74-0)	
LC50 fish 1	= 1,3 mg/l (OECD 203; 96 h; Brachydanio rerio)
EC50 Daphnia 1	= 1,4 mg/l (OECD 202; 48h)
EC50 other aquatic organisms 2	= 69 mg/l (OECD 209; IC50 3h; bacteria)

3,5-di-tert-butyl-4-hydroxyhydrocinnamic acid, C7-9-branched alkyl esters (125643-61-0)	
LC50 fish 1	≥ 74 mg/l
ErC50 (algae)	≥ 33,7 mg/l (OECD 201, 72 h, Pseudokirchnerella subspicata)
NOEC (acute)	= 33,7 mg/l (72 h, Pseudokirchnerella subspicata)
NOEC (chronic)	≤ 0,01 mg/l (21 d, Daphnia magna)

12.2. Persistence and degradability

eni MX 5002 (N/A)	
Persistence and degradability	Not biodegradable. A fraction of the constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions. .

Mineral base oil, severely refined	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions.

Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (68921-45-9)	
Biodegradation	= 8 % (OECD 301; Read-across)

Dialkyl dithiophosphate ester (268567-32-4)	
Biodegradation	< 10 % (OECD 301b)

N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine + N,N-bis(2-ethylhexyl)-1-methyl-1H-benzotriazole-1-methylamine (80584-90-3 + 80595-74-0)	
Persistence and degradability	Not biodegradable.
Biodegradation	(OECD 301b)

12.3. Bioaccumulative potential

eni MX 5002 (N/A)	
Log Pow	Not applicable for mixtures

Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-4)- (4259-15-8)	
Log Kow	3,6 (Octanol Water Coefficient test - 0,1 days)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

eni MX 5002 (N/A)	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.	
Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

Mineral base oil, severely refined	
This substance/mixture does not meet the PBT criteria of REACH, annex XIII.	
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.	
Results of PBT-vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

12.6. Other adverse effects

Other adverse effects : None.

Other information : This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.

Sewage disposal recommendations : Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.

Waste disposal recommendations : European Waste Catalogue code(s) (Decision 2001/118/CE): 13 02 05* (mineral-based non-chlorinated engine, gear and lubricating oils). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.

Additional information : Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

Ecology - waste materials : The product as it is does not contain halogenated substances.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc alkyldithiophosphate), 9, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 9

Hazard labels (UN) : 9

14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Transport regulations (ADR) : Subject to the provisions

Transport regulations (RID) : Subject to the provisions

Hazard identification number (Kemler No.) : 90

Classification code : M6

Orange plates :

Tunnel restriction code : E

Limited quantities (ADR) :

Excepted quantities (ADR) : E1

EAC code : •3Z

14.6.2. Transport by sea

Transport regulations (IMDG) : Subject to the provisions

Transport regulations (ADNR) : Subject to the provisions

Limited quantities (IMDG) : 5 l

EmS-No. (1) : F-A, S-F

14.6.3. Air transport

Transport regulations (IATA) : Subject to the provisions

Instruction "cargo" (ICAO) : 450 l

Instruction "passenger" (ICAO) : 450 l

Instruction "passenger" - Limited quantities (ICAO) : 30 kg

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

IBC code : IBC03.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

No ingredients are included in the REACH Candidate list (> 0,1 % m/m).

Relevant EU Legislation	: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace) Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding) Directives 96/82/CE and 2003/105/CE (Control of major-accident hazards involving dangerous substances). This product, for its composition or characteristics, corresponds to the criteria which are listed in Annex I. Refer to the Directive (or corresponding national regulations) for connected obligations, according to the amount of product present in a specific site. Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds) Labelling according to directives 67/548/EEC and 1999/45/EC
VOC content	: = 0 % (EU, CH)
EURAL code (EWC)	: 13 02 05*

15.1.2. National regulations

Maladies professionelles (F)	: RG 36 - Affections provoquées par les huiles et graisses d'origine minérale ou de synthèse
Water hazard class (WGK) (D)	: 3 (according to composition)
WGK remark	: Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)
Storage class (LGK) (D)	: LGK 12 - Non-flammable liquids in non-flammable packages
VbF class (D)	: Not applicable.
Regional legislation	: National adoption of EU Directives concerning health and safety on the workplace. National laws on classification and labeling of dangerous substances/preparations (Adoption of Directive 67/548/CE and subsequent Adaptations to Technical Progress - ATP, and Directive 1999/45/CE). National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (96/82/CE - 2003/105/CE). Relevant national laws on prevention of water pollution. Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC). National adoption of Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils.

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out
Mineral base oil, severely refined

SECTION 16: Other information

Indication of changes	: Modification according to Regulation (EC) nr. 1907/2006 and nr. 453/2010. Formula.

Data sources	:	This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
Abbreviations and acronyms	:	Complete text of the phrases H and R quoted in this Safety Data Sheet. These phrases are reported here for information only, and MAY NOT correspond to the classification of the product. N/A = Not applicable. N/D = Not available ACGIH = American Conference of Governmental Industrial Hygienists API = American Petroleum Institute CSR = Chemical Safety Report DNEL = Derived No Effect Level DMEL = Derived Minimum Effect Level EC50 = Effective Concentration, 50% EL50 = Effective Loading, 50 % EPA = Environmental Protection Agency IC50 = Inhibition Concentration, 50% LC50 = Lethal Concentration, 50% LD50 = Lethal Dose, 50% LL50 = Lethal Loading, 50% LOAEL = Low Observed Adverse Effects Level NOEL = No Observed Effects Level NOAEL = No Observed Adverse Effects Level OECD = Organization for Economic Cooperation and Development PNEC = Predicted No-Effect Concentration PBT = Persistent, Bioaccumulative, Toxic STOT = Single Target Organ Toxicity (STOT) RE = (Single Target Organ Toxicity) Repeated exposure (STOT) SE = (Single Target Organ Toxicity) Single exposure TLV®TWA = Threshold Limit Value® – Time-Weighted Average TLV®STEL = Threshold Limit Value® – Short Term Exposure Limit UVCB = Substance of Unknown or Variable composition, Complex reaction products or Biological materials vPvB = very Persistent, very Bioaccumulative WAF = Water Accommodated Fraction.
Training advice	:	Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.
Other information	:	Do not use the product for any purposes that have not been advised by the manufacturer. In that case, the user could be exposed to unpredictable risks. ---- . If there is any suspicion of inhalation of H2S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

Full text of R-, H- and EUH-phrases::

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — AcuteHazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Gas 1	Flammable gases, Category 1
Press. Gas	Gases under pressure

Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
H220	Extremely flammable gas
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H400	Very toxic to aquatic life
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
R12	Extremely flammable
R26	Very toxic by inhalation
R38	Irritating to skin
R41	Risk of serious damage to eyes
R43	May cause sensitisation by skin contact
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R53	May cause long-term adverse effects in the aquatic environment
F+	Extremely flammable
N	Dangerous for the environment
T+	Highly toxic
Xi	Irritant

SDS EU (Annex II) GENERAL

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product