



according to Regulation (EC) No 1907/2006

200 High performance lubricant

Print date: 29.09.2014

Product code: MH20000500AB

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Hazardous components which must be listed on the labelHydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics

Signal word:

Danger

Pictograms:

GHS02-GHS07

**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P302+P352	IF ON SKIN: Wash with Water and soap..
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**



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Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
921-024-6	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane	1 - < 5 %
	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119475514-35		
927-510-4	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics	1 - < 5 %
	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119475515-33		
224-235-5	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	0.1 - < 1 %
4259-15-8	Xi - Irritant, N - Dangerous for the environment R41-51-53	
	Eye Dam. 1, Aquatic Chronic 2; H318 H411	
01-2119493635-27		
203-777-6	n-hexane	0.1 - < 1 %
110-54-3	Repr. Cat. 3, F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-62-48/20-65-38-67-51-53	
601-037-00-0	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 2; H225 H361f H315 H336 H373 H304 H411	

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

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Never give anything by mouth to an unconscious person or a person with cramps. Remove persons to safety.

After inhalation

Provide fresh air.

After contact with skin

Wash with plenty of water. Change contaminated clothing.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**



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Suitable extinguishing mediaCarbon dioxide (CO₂). Foam. Extinguishing powder.**Unsuitable extinguishing media**

Full water jet

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion hazard.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Dust must be exhausted directly at the point of origin. When using do not eat, drink, smoke, sniff.

Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharge. Vapours may form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition.
- No smoking.**Advice on storage compatibility**

Do not store together with: Material, rich in oxygen, oxidizing.

Further information on storage conditions

Protect from frost. Protect against direct sunlight.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**



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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane		1500		TWA (8 h) STEL (15 min)	
	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics		1500		TWA (8 h) STEL (15 min)	TRGS TRGS
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
110-54-3	n-Hexane	20	72		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Additional advice on limit values

- a no restriction
- b End of exposure or shift
- c in long-term exposure: after several shifts
- d prior to next shift

TWA (EC): time-weighted average

U: Urea

8.2. Exposure controls**Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.
DIN EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min
Thickness of the glove material 0,45 mm
DIN EN 374

Skin protection

Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.
Suitable respiratory protection apparatus: Combination filtering device (EN 14387)
Filtering device with filter or ventilator filtering device of type: AX
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).



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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Aerosol
Colour:	brown
Odour:	Solvent

Test method

pH-Value (at 20 °C): not applicable

Changes in the physical state

Melting point: No information available.

Initial boiling point and boiling range: -40 °C

Sublimation point: No information available.

Softening point: No information available.

Flash point: -80 °C

Lower explosion limits: 1 vol. %

Upper explosion limits: 11 vol. %

Ignition temperature: No information available.

Vapour pressure: No information available.

Vapour pressure: No information available.

Density (at 20 °C): 0,829 g/cm³ DIN 51757

Bulk density: No information available.

Water solubility: insoluble

Partition coefficient: No information available.

Viscosity / dynamic: No information available.

Viscosity / kinematic: No information available.

Flow time: No information available.

Vapour density: No information available.

Evaporation rate: No information available.

Solvent separation test: No information available.

Solvent content: No information available.

9.2. Other information

Solid content: No information available.

density: Data apply to technical substance.

pressure: 20°C: 3,5 bar

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reacts with : Oxidising agent

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.



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10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

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

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane				
	oral	LD50	> 5000 mg/kg	Rat	
	dermal	LD50	> 2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50	> 23,3 mg/l	Rat	
	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics				
	oral	LD50	5500 mg/kg	Rat	
	dermal	LD50	2770 mg/kg	Rat	
	inhalative (4 h) vapour	LC50	23,3 mg/l	Rat	
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)				
	oral	LD50	>3100 mg/kg	Rat	
	dermal	LD50	>2000 - <5000 mg/kg	Rabbit	
110-54-3	n-hexane				
	dermal	LD50	> 2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50	> 31,86 mg/l	Rat	

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane), (Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics), (n-hexane)



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Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

No indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information**12.1. Toxicity**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane					
	Acute fish toxicity	LC50	> 1-10 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 mg/l	> 10 - 100	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	> 1-10 mg/l	48 h	Daphnia magna	
	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics					
	Acute fish toxicity	LC50	> 1 - 10 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	>10 - 100	72 h	Algae toxicity	
	Acute crustacea toxicity	EC50	> 1 - 10 mg/l	48 h	Daphnia magna	
4259-15-8	zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)					
	Acute fish toxicity	LC50	>2-10 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>240 mg/l	72 h	Pseudomonas putida	
	Acute crustacea toxicity	EC50	>2-10 mg/l	48 h	Daphnia magna	
110-54-3	n-hexane					
	Acute fish toxicity	LC50	2,5 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	9,9 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	30 mg/l	48 h	Daphnia magna	
	Algae toxicity	NOEC	2,077 mg/l	3 d	Pseudokirchneriella subcapitata	
	Acute bacteria toxicity	(48,39 mg/l)		0 h	Tetrahymena pyriformis	

12.2. Persistence and degradability

There are no data available on the mixture itself. AOX (mg/l): 0

12.3. Bioaccumulative potential

There are no data available on the mixture itself.



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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane	3,4 - 5,2
110-54-3	n-hexane	3,9

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Transport category:	2
Tunnel restriction code:	D



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Other applicable information (land transport)

Limited quantity: E0

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2.1
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L

Other applicable information (inland waterways transport)

Limited quantity: E0

Marine transport (IMDG)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
Marine pollutant:	Yes
Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	1000 mL
EmS:	F-D, S-U

Other applicable information (marine transport)

Limited quantity: E0

Air transport (ICAO)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS, flammable
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

Other applicable information (air transport)

Limited quantity: E0

Passenger-LQ: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	yes
Danger releasing substance:	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane

14.6. Special precautions for user

Warning: Flammable gases



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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

1999/13/EC (VOC): VOC-CH: 0,242 kg/500ml can (75,12 % w/w)
 VOC 1999/13/EG: 75,12 % w/w

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

Additional information

94/69/EC (21st ATP). The benzene content of the product is less than 0.1%. It applies the annotation P.
 Classification and labeling as carcinogenic is not necessary.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 2,8,14.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IATA: International Air Transport Association
 IMDG: International Maritime Code for Dangerous Goods
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
 WEL (UK): Workplace Exposure Limits
 TWA (EC): Time-Weighted Average
 ATE: Acute Toxicity Estimate
 STEL (EC) Short Term Exposure Limit
 LC50: Lethal Concentration
 EC50: half maximal Effective Concentration
 ErC50: means EC50 in terms of reduction of growth rate

Relevant R-phrases (Number and full text)

- | | |
|-------|---|
| 11 | Highly flammable. |
| 38 | Irritating to skin. |
| 41 | Risk of serious damage to eyes. |
| 48/20 | Harmful: danger of serious damage to health by prolonged exposure through inhalation. |
| 51 | Toxic to aquatic organisms. |
| 53 | May cause long-term adverse effects in the aquatic environment. |
| 62 | Possible risk of impaired fertility. |
| 65 | Harmful: may cause lung damage if swallowed. |
| 67 | Vapours may cause drowsiness and dizziness. |

Relevant H- and EUH-phrases (Number and full text)

- | | |
|------|------------------------------|
| H222 | Extremely flammable aerosol. |
|------|------------------------------|



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H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)