

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:

320102501 Malva EFE SAE 5W30

1.2 Relevant identified uses of the substance or mixture and uses advised against: Relevant uses: Lubricant Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Dyade Lubricants B.V. Typograaf 16 6921 VB Duiven - The Netherlands Phone.: 0031316745745 info@dyade-lubricants.com http://www.dyade-lubricants.com

1.4 Emergency telephone number:

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Hazard statements:

Non-applicable

Precautionary statements:

Non-applicable

Supplementary information:

Safety data sheet available on request

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture based on hydrocarbons and additives

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification		Chemical name/Classification			
CAS: 64742-54-7	Distillates (petroleum),	hydrotreated heavy paraffinic , < 3 % IP 346, > 20,5 cSt @ $40^{\circ}C^{(1)}$	ATP CLP00		
EC: 265-157-1 Index: 649-467-00-8 REACH: 01-2119484627-25- XXXX	Regulation 1272/2008			75 - <100 %	
CAS: 36878-20-3	Bis(nonylphenyl)amine	1)	Self-classified		
EC: 253-249-4 Index: Non-applicable REACH: 01-2119488911-28- XXXX	Regulation 1272/2008	Aquatic Chronic 4: H413		1 - <2.49 %	



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

	Identification		Chemical name/Classification			
CAS:	2215-35-2	zinc 0,0,0',0'-tetrakis	(1,3-dimethylbutyl) bis(phosphorodithioate)(1) Self	f-classified		
EC: Index: REACH	218-679-9 Non-applicable : 01-2119953275-34- XXXX	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger		1 - <2.49 %	
CAS:	84605-29-8	Phosphorodithioic acid,	mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts ⁽¹⁾ Selt	f-classified		
EC: Index: REACH	283-392-8 Non-applicable : 01-2119493626-26- XXXX	Regulation 1272/2008	Aquatic Chronic 2: H411; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger		0.15 - <0.99 %	

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:



SECTION 5: FIREFIGHTING MEASURES (continued)

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

Avoid spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Maximum time: 60 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace There are no occupational exposure limits for the substances contained in the product



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

DNEL (Workers):

		Short e	exposure	Long exposure	
Identification	Identification		Local	Systemic	Local
Bis(nonylphenyl)amine	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 36878-20-3	Dermal	Non-applicable	Non-applicable	0,62 mg/kg	Non-applicable
EC: 253-249-4	Inhalation	Non-applicable	Non-applicable	4,37 mg/m ³	Non-applicable
zinc O,O,O´,O´-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 2215-35-2	Dermal	Non-applicable	Non-applicable	12,2 mg/kg	Non-applicable
EC: 218-679-9	Inhalation	Non-applicable	Non-applicable	8,6 mg/m ³	Non-applicable
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 84605-29-8	Dermal	Non-applicable	Non-applicable	12,1 mg/kg	Non-applicable
EC: 283-392-8	Inhalation	Non-applicable	Non-applicable	8,31 mg/m ³	Non-applicable

DNEL (General population):

		Short e	Short exposure		xposure
Identification		Systemic	Local	Systemic	Local
Bis(nonylphenyl)amine	Oral	Non-applicable	Non-applicable	0,31 mg/kg	Non-applicable
CAS: 36878-20-3	Dermal	Non-applicable	Non-applicable	0,31 mg/kg	Non-applicable
EC: 253-249-4	Inhalation	Non-applicable	Non-applicable	1,09 mg/m ³	Non-applicable
zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	Oral	Non-applicable	Non-applicable	0,24 mg/kg	Non-applicable
CAS: 2215-35-2	Dermal	Non-applicable	Non-applicable	6,1 mg/kg	Non-applicable
EC: 218-679-9	Inhalation	Non-applicable	Non-applicable	2,13 mg/m ³	Non-applicable
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	Oral	Non-applicable	Non-applicable	0,24 mg/kg	Non-applicable
CAS: 84605-29-8	Dermal	Non-applicable	Non-applicable	6,1 mg/kg	Non-applicable
EC: 283-392-8	Inhalation	Non-applicable	Non-applicable	2,11 mg/m ³	Non-applicable

PNEC:

Identification				
Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, > 20,5 cSt @ 40°C	STP	Non-applicable	Fresh water	Non-applicable
CAS: 64742-54-7	Soil	Non-applicable	Marine water	Non-applicable
EC: 265-157-1	Intermittent	Non-applicable	Sediment (Fresh water)	Non-applicable
	Oral	9,33 g/kg	Sediment (Marine water)	Non-applicable
Bis(nonylphenyl)amine	STP	1 mg/L	Fresh water	0,1 mg/L
CAS: 36878-20-3	Soil	263000 mg/kg	Marine water	0,01 mg/L
EC: 253-249-4	Intermittent	1 mg/L	Sediment (Fresh water)	132000 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	13200 mg/kg
zinc O,O,O´,O´-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	STP	100 mg/L	Fresh water	0,004 mg/L
CAS: 2215-35-2	Soil	0,01 mg/kg	Marine water	0,0046 mg/L
EC: 218-679-9	Intermittent	0,045 mg/L	Sediment (Fresh water)	0,06 mg/kg
	Oral	10,67 g/kg	Sediment (Marine water)	0,006 mg/kg
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	STP	100 mg/L	Fresh water	0,004 mg/L
CAS: 84605-29-8	Soil	0,0548 mg/kg	Marine water	0,0046 mg/L
EC: 283-392-8	Intermittent	0,045 mg/L	Sediment (Fresh water)	Non-applicable
	Oral	10,67 g/kg	Sediment (Marine water)	Non-applicable

8.2 Exposure controls:

A.- General security and hygiene measures in the work place



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2003+ A1:2009 and EN ISO 374-1:2016

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"

D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory face protection	Panoramic glasses against splash/projections.	CAT II	EN 166:2001 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing	CATI		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F - Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
+	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	0 + T	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 15 °C:	0 kg/m³ (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

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Odour: Odour th Volatility Boiling p Vapour p Vapour p Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Pc Flammal Autoignit Lower fla		Oily
Odour the Volatility Boiling p Vapour p Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla		Amber
Volatility Boiling p Vapour p Vapour p Evapora Product Density a Relative Dynamic Kinemat Kinemat Concent pH: Vapour o Partition Solubility Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	:	Characteristic
Boiling p Vapour p Vapour p Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	threshold:	Non-applicable *
Vapour p Vapour p Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	ity:	
Vapour p Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	point at atmospheric pressure:	Non-applicable *
Evapora Product Density a Relative Dynamic Kinemat Concent pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	r pressure at 15 ℃:	Non-applicable *
Product Density a Relative Dynamic Kinemat Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	r pressure at 50 °C:	<300000 Pa (300 kPa)
Density a Relative Dynamic Kinemat Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Pc Flammal Autoignit Lower fla	ration rate at 15 °C:	Non-applicable *
Relative Dynamic Kinemati Concent pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Autoignit Lower fla	ct description:	
Dynamic Kinemat Kinemat Concent pH: Vapour o Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	y at 15 ⁰C:	853 kg/m³
Kinemati Kinemati Concent pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	ve density at 15 °C:	0,868
Kinemati Concent pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	nic viscosity at 15 °C:	62,17 cP
Concent pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	atic viscosity at 15 °C:	71,6 cSt
pH: Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	atic viscosity at 40 °C:	61 cSt
Vapour of Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla	ntration:	Non-applicable *
Partition Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla		Non-applicable *
Solubility Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Pc Flammal Autoignit Lower fla	r density at 15 ℃:	Non-applicable *
Solubility Decomp Melting p Explosiv Oxidising Flammal Flash Pc Flammal Autoignit Lower fla Upper fla	on coefficient n-octanol/water 15 °C:	Non-applicable *
Decomp Melting p Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla Upper fla	lity in water at 15 °C:	Non-applicable *
Melting p Explosiv Oxidising Flammal Flash Pc Flammal Autoignit Lower fla Upper fla	lity properties:	Slightly soluble in cold water
Explosiv Oxidising Flammal Flash Po Flammal Autoignit Lower fla Upper fla	nposition temperature:	Non-applicable *
Oxidising Flammal Flash Po Flammal Autoignit Lower fla Upper fla	g point/freezing point:	Non-applicable *
Flamma l Flash Po Flammal Autoignit Lower fla Upper fla	sive properties:	Non-applicable *
Flash Po Flammal Autoignit Lower fla Upper fla	ing properties:	Non-applicable *
Flammal Autoignit Lower fla Upper fla	nability:	
Autoignii Lower fla Upper fla	Point:	>200 °C (ASTM D-92)
Lower fla Upper fla	nability (solid, gas):	Non-applicable *
Upper fla	nition temperature:	288 °C
	flammability limit:	Non-applicable *
	flammability limit:	Non-applicable *
Explosiv	sive:	
Lower ex	explosive limit:	Non-applicable *
Upper ex	explosive limit:	Non-applicable *
9.2 Other inf	information:	
Surface	e tension at 15 °C:	Non-applicable *
Refractio	tion index:	Non-applicable *

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:



SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

	Acids	Water	Oxidising materials	Combustible materials	Others		
Av	void strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases		

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

- A- Ingestion (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.
- B- Inhalation (acute effect):
 - Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified
 - as dangerous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3.
 - Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
 - IARC: Non-applicable
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:



SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
zinc O,O,O´,O´-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	LD50 oral	2230 mg/kg	Rat
CAS: 2215-35-2	LD50 dermal	Non-applicable	
EC: 218-679-9	LC50 inhalation	Non-applicable	
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	LD50 oral	3100 mg/kg	Rat
CAS: 84605-29-8	LD50 dermal	Non-applicable	
EC: 283-392-8	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Contains phosphates. Excessive discharge may cause eutrophication.

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
zinc O,O,O′,O′-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	LC50	1 - 10 mg/L (96 h)		Fish
CAS: 2215-35-2	EC50	1 - 10 mg/L		Crustacean
EC: 218-679-9	EC50	1 - 10 mg/L		Algae
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso- Pr) esters, zinc salts	LC50	1 - 10 mg/L (96 h)		Fish
CAS: 84605-29-8	EC50	1 - 10 mg/L		Crustacean
EC: 283-392-8	EC50	1 - 10 mg/L		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
zinc O,O,O´,O´-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 2215-35-2	COD	Non-applicable	Period	28 days
EC: 218-679-9	BOD5/COD	Non-applicable	% Biodegradable	1,5 %

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:



SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorp	Absorption/desorption		Volatility	
zinc O,O,O´,O´-tetrakis(1,3-dimethylbutyl) bis (phosphorodithioate)	Кос	Non-applicable	Henry	Non-applicable	
CAS: 2215-35-2	Conclusion	Non-applicable	Dry soil	Non-applicable	
EC: 218-679-9	Surface tension	5,98E-2 N/m (22,2 °C)	Moist soil	Non-applicable	

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	Non dangerous

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

- CONTINUED ON NEXT PAGE -



SECTION 15: REGULATORY INFORMATION (continued)

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects Aquatic Chronic 4: H413 - May cause long lasting harmful effects to aquatic life Eye Dam. 1: H318 - Causes serious eye damage Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

Product safety information sheet prepared in accordance with Article 32 of Regulation (EC) 1907/2006 (REACH); this document does not constitute a Safety Data Sheet under Article 31 of Regulation (EC) No. 1907/2006, as a Safety Data Sheet is not mandatory for this product

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.