SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

CLAAS AGRISHIFT SYN FE 75W-90

SDS # : 081474

previous revision date : 2023/02/28

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

1.1 Product identifier

Product name : CLAAS AGRISHIFT SYN FE 75W-90

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

Identified uses
Transmission fluids

1.3 Details of the supplier of the safety data sheet

TotalEnergies Lubrifiants
562 Avenue du Parc de L'ile
92029 Nanterre Cedex FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71

rm.msds-lubs@totalenergies.com

TotalEnergies Marketing Croatia d.o.o.,
Horvatova 80a, 10000 Zagreb, Hrvatska.
Tel: + 385 1 6700 339

ms.logistika@totalenergies.com

Contact

H.S.E

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : Telephone number for medical information in case of poisoning: +385 (0) 1 23-48-342

Emergency phone: 112

Supplier

Telephone number : Total Emergency phone: +44 1235 239670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

For more details about adverse physical, human health and environmental effects, see sections 9 to 12.

2.2 Label elements

Signal word	:	No signal word.
Hazard statements	:	No hazard statement.
Precautionary statements		
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	Contains Polysulfides, di-tert-Bu and Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl. May produce an allergic reaction. Safety data sheet available on request.
Labelling element REACh Annex XVII	:	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2. This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACh Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.
Other hazards which do not result in classification	:	Hazard of slipping on spilled product.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/substance	Identifiers	% (w/w)	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Dec-1-ene, trimers, hydrogenated	REACH #: 01-2119493949-12 EC: 500-393-3 CAS: 157707-86-3	≥50 - ≤75	Asp. Tox. 1, H304	-	[1]
mineral oil	-	≤10	Asp. Tox. 1, H304	-	[1]
Polysulfides, di-tert-Bu	REACH #: 01-2119540515-43 EC: 273-103-3 CAS: 68937-96-2	<4.7	Skin Sens. 1B, H317 Aquatic Chronic 3, H412	Skin Sens. 1B, H317: C ≥ 46%	[1]
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	REACH #: 01-2119493620-38 EC: 931-384-6	≤2	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	ATE [Oral] = 2000 mg/kg Eye Irrit. 2, H319: C ≥ 50% Skin Sens. 1B, H317: C ≥ 9.39%	[1]
O,O,O-triphenyl phosphorothioate	REACH #: 01-2119979545-21 EC: 209-909-9	≤1	Aquatic Chronic 1, H410	M [Chronic] = 10	[1] [2]

magnesium metaborate	CAS: 597-82-0 REACH #: 01-2120769073-53 EC: 237-235-5 CAS: 13703-82-7	≤1	Skin Sens. 1B, H317 **See Section 16 for the full text of the H statements declared above.**	Skin Sens. 1B, H317: C ≥ 15%	[1]

Additional information : Mineral oil of petroleum origin. The product is made from synthetic base oils Product containing mineral oil with less than 3% DMSO extract as measured by IP 346

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Carbon dioxide (CO_2).
carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

See Section 10 for incompatible materials before handling or use.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological Limit Values (BLV)

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Advisory OEL : Not available.

DNELs/DMELs

Product/substance	Result
mineral oil	**DNEL - Workers - Long term - Inhalation** 5.58 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 2.73 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 0.74 mg/kg

	Effects: Systemic **DNEL - General population - Long term - Dermal** 0.97 mg/kg Effects: Systemic **DNEL - General population - Long term - Inhalation** 1.19 mg/m³ Effects: Local
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	**DNEL - Workers - Long term - Dermal** 12.5 mg/kg Effects: Systemic **DNEL - Workers - Long term - Inhalation** 4.28 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 6.25 mg/kg Effects: Systemic **DNEL - General population - Long term - Inhalation** 1.09 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 0.25 mg/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.16 mg/cm² Effects: Local
O,O,O-triphenyl phosphorothioate	**DNEL - General population - Long term - Oral** 0.2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 0.2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.34 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.4 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 1.39 mg/m³ Effects: Systemic
magnesium metaborate	**DNEL - General population - Long term - Dermal** 0.278 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Oral**

	0.28 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.82 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 5.49 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 7.78 mg/kg bw/day Effects: Systemic

PNECs

Product/substance	Result
mineral oil	**Secondary Poisoning** 9.33 mg/kg
Polysulfides, di-tert-Bu	**Fresh water** 0.00024 mg/l **Marine water** 0.000024 mg/l **Fresh water sediment** 0.94 mg/kg dwt **Marine water sediment** 0.094 mg/kg dwt **Soil** 1513 mg/kg **Sewage Treatment Plant** 4.51 mg/l
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	**Fresh water** 2.4 µg/l **Marine water** 240 ng/l **Fresh water sediment** 12.9 µg/kg dwt **Marine water sediment** 1.29 µg/kg dwt **Soil** 1.17 µg/kg dwt **Sewage Treatment Plant** 24.33 mg/l **Secondary Poisoning** 10 mg/kg

O,O,O-triphenyl phosphorothioate	**Soil - Assessment Factors** 2.46 mg/kg dwt **Fresh water - Assessment Factors** 0.17 µg/l **Marine water - Assessment Factors** 0.017 µg/l **Fresh water sediment - Equilibrium Partitioning** 3.47 mg/kg dwt **Marine water sediment - Equilibrium Partitioning** 0.347 mg/kg dwt
magnesium metaborate	**Fresh water** 0.05 mg/l **Marine water** 0.05 mg/l **Fresh water sediment** 1.38 mg/kg dwt **Marine water sediment** 1.38 mg/kg dwt **Soil** 0.247 mg/kg dwt **Sewage Treatment Plant** 100 mg/l

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : In case of contact through splashing: safety glasses with side-shields, EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Hydrocarbon-proof gloves
nitrile rubber
Fluorinated rubber
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative

only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency

Body protection : Wear work clothing with long sleeves.
Non-skid safety shoes or boots

Respiratory protection : Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of inadequate ventilation wear respiratory protection: Type A/P1. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid. [limpid]

Color : Yellow.to Amber.

Odor : Characteristic.

pH : Not applicable. Product is non-soluble (in water).

Melting point/freezing point : Technically not possible to measure

Initial boiling point and boiling range : >316°C [ISO 3405]

Flash point : Open cup: 190°C [ASTM D 92]

Flammability : Non-flammable.

Lower and upper explosion limit : Lower: 0.9%
Upper: 7%

Vapor pressure : <0.01 kPa [room temperature]
Not applicable. [50°C]

Vapor density : >2 [Air = 1]

Relative density : 0.866 [ISO 12185]

Density : 0.866 g/cm³ [15°C] [ISO 12185]

Solubility(ies) :

Media	Result
water	Not soluble

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : >190°C [ASTM E 659]

Decomposition temperature : Not applicable.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): 101 mm^2/s [ASTM D 445]

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Pour point : -51°C (-59.8°F)

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : Strong oxidizing agents

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	Result
Dec-1-ene, trimers, hydrogenated	**Rat - Oral - LD50** >5000 mg/kg OECD 401 **Rat - Dermal - LD50** >3000 mg/kg OECD 402 **Rat - Inhalation - LC50 Vapor** 1.17 mg/l [4 hours] OECD 403 **Rat - Inhalation - LC50 Vapor** 0.9 mg/l [4 hours] OECD 403 **Rat - Inhalation - LC50 Vapor** 1.4 mg/l [4 hours] OECD 403
Polysulfides, di-tert-Bu	**Rat - Male, Female - Oral - LDLo** 2000 mg/kg OECD 401 **Rat - Male, Female - Dermal - LD50** >2000 mg/kg OECD 402

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	**Rat - Oral - LD50** 2000 mg/kg OECD 401 **Rabbit - Dermal - LD50** 2201 mg/kg **Rat - Inhalation - LC50 Vapor** 80.4 mg/l [1 hours] **Rat - Inhalation - LC50 Vapor** 20.1 mg/l [4 hours] **Rat - Inhalation - LC50 Dusts and mists** 5.1 mg/l [4 hours]
O,O,O-triphenyl phosphorothioate	**Rat - Oral - LD50** >10000 mg/kg **Rat - Dermal - LD50** >2000 mg/kg OECD
magnesium metaborate	**Rat - Oral - LD50** >2000 mg/kg OECD 420 **Rat - Dermal - LD50** >2000 mg/kg OECD 402

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
CLAAS AGRISHIFT SYN FE 75W-90 Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	100000 2000	N/A 2201	N/A N/A	N/A 20.1	N/A 5.1

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

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory corrosion/irritation

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

Respiratory or skin sensitization

Skin

Based on available data, the classification criteria are not met. Contains sensitizer. May produce an allergic reaction.

Respiratory

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

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

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
Ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Potential chronic health effects

Product/substance	Result
Polysulfides, di-tert-Bu	**Sub-acute - Rat - Male, Female - Oral - NOAEL** 100 mg/kg

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, classification is not required.

12.1 Toxicity

Product/substance	Result
Dec-1-ene, trimers, hydrogenated	**Acute - EL50 - Fresh water** Algae - *Scenedesmus capricornutum* OECD [201] >1000 mg/l [72 hours] Effect: (growth rate) **Acute - EL50 - Fresh water** Daphnia OECD [202] >150 mg/l [48 hours] Effect: Mobility **Acute - LL50 - Fresh water** Fish - *Oncorhynchus mykiss* OECD [203] 1000 mg/l [96 hours] Effect: Mortality
mineral oil	**Acute - EC50** Algae - *Scenedesmus quadricauda* >100 mg/l [72 hours] **Acute - EC50** Daphnia >10000 mg/l [48 hours] **Chronic - NOEC** Daphnia >10 mg/l [21 days] **Acute - LC50** Fish - *Pimephales promelas* >100 mg/l [96 hours]
Polysulfides, di-tert-Bu	**Acute - EC50** Algae >100 mg/l [72 hours] **Acute - EC50** Daphnia - *Daphnia magna* 63 mg/l [48 hours]
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	**Acute - LL50** Fish - *Oncorhynchus mykiss* OECD 203 24 mg/l [96 hours] **Acute - EL50** Crustaceans - *Daphina Magna* OECD [202] 91.4 mg/l [48 hours] Effect: Mobility

	Acute - EC50 Algae - *Pseudokirchneriella subcapitata* OECD [201] 6.4 mg/l [96 hours] Effect: (growth rate) **Chronic - NOEL** Crustaceans - *Daphina Magna* OECD [211] 0.12 mg/l [21 days] Effect: Reproduction **Chronic - NOEC** Algae - *Pseudokirchneriella subcapitata* OECD [201] 1.7 mg/l [96 hours] Effect: (growth rate)
O,O,O-triphenyl phosphorothioate	**Chronic - NOEC** Fish - *Oncorhynchus mykiss* OECD 210 0.00176 mg/l [97 days] **Acute - EC50** Daphnia - *Daphnia magna* OECD 202 >100 mg/l [48 hours] **Chronic - NOEC** Daphnia - *Oncorhynchus mykiss* OECD 211 ≥0.00724 mg/l [21 days]
magnesium metaborate	**Acute - EC50** Micro-organism 1000 mg/l [3 hours]

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

12.2 Persistence and degradability

Product/substance	Result
Dec-1-ene, trimers, hydrogenated	OECD [301B] 7% [28 days]
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	STDMETH, ASTM and USEPA 3% [28 days] - Not readily

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Dec-1-ene, trimers, hydrogenated	-	-	Not readily
mineral oil	-	-	Not readily
Polysulfides, di-tert-Bu	-	-	Not readily
Reaction products of	-	-	Not readily

4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl			
O,O,O-triphenyl phosphorothioate	-	-	Not readily

12.3 Bioaccumulative potential

Product/substance	$LogK_{ow}$	BCF	Potential
Dec-1-ene, trimers, hydrogenated	>6.5	-	High
Polysulfides, di-tert-Bu	6	-	High
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	0.3 to 7.1	-	Low
O,O,O-triphenyl phosphorothioate	5	842 to 2194	High

12.4 Mobility in soil

Soil/Water partition coefficient

Product/substance	logKoc	Koc
O,O,O-triphenyl phosphorothioate	4.7	49128.4

Results of PMT and vPvM assessment

Product/substance	PMT	P	M	T	vPvM	vP	vM
Dec-1-ene, trimers, hydrogenated	No	N/A	N/A	No	N/A	N/A	N/A
mineral oil	No	N/A	N/A	No	N/A	N/A	N/A
Polysulfides, di-tert-Bu	No	N/A	N/A	No	N/A	N/A	N/A
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	No	N/A	N/A	No	N/A	N/A	N/A
O,O,O-triphenyl phosphorothioate	No	Yes	No	Yes	No	N/A	No
magnesium metaborate	No	No	No	No	No	No	No

Mobility : Not available.

Mobility in soil : Given its physical and chemical characteristics, the product generally shows low soil mobility The product is insoluble and floats on water. Loss by evaporation is limited

12.5 Results of PBT and vPvB assessment

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

Product/substance	PBT	P	B	T	vPvB	vP	vB
Dec-1-ene, trimers, hydrogenated	No	N/A	N/A	No	N/A	N/A	N/A
mineral oil	No	N/A	N/A	No	N/A	N/A	N/A
Polysulfides, di-tert-Bu	No	N/A	N/A	No	N/A	N/A	N/A
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	No	N/A	N/A	No	N/A	N/A	N/A
O,O,O-triphenyl phosphorothioate	Yes	Yes	Yes	Yes	No	N/A	No
magnesium metaborate	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Should not be released into the environment.

Hazardous waste : Yes.

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 02 06*

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ICAO/IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

Ingredient name	Intrinsic property	Status	Reference number	Date of revision
Ø,O,O-triphenyl phosphorothioate	PBT	Candidate	-	6/7/2024

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Labeling : Not applicable.

Other EU regulations

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

National regulatory information

The Chemical act
Ordinance on limit values on hazard substances exposure during work and biological threshold values
E.g Law on hazard chemical transport
Law on health and safety
Act on Sustainable Waste Management NN no. 94/13
OG no. 73/17
Ordinance on Waste Management NN. 23/14
Official Gazette no. 15/14
OG no. 121/15
OG no. 132/15
Ordinance on packaging and packaging waste NN no. 88/15
78/16
Ordinance on the waste catalogue NN no. 90/15

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AIIC) : All components are listed or exempted.

Canada inventory (DSL/NDSL) : All components are listed or exempted.

China inventory (IECSC)	: All components are listed or exempted.
Europe inventory (EC)	: All components are listed or exempted.
Japan inventory	: **Japan inventory (CSCL)**: All components are listed or exempted. **Japan inventory (ISHL)**: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: At least one component is not listed.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

15.2 Chemical Safety Assessment : Risk management measures and safety conditions of use are included in the relevant sections of the SDS

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

ACGIH = American Conference of Governmental Industrial Hygienists
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
B = Bioaccumulative
BCF = Bioconcentration Factor
DNEL = Derived No Effect Level
DMEL = Derived Minimal Effect Level
DMSO = Dimethyl Sulfoxide
EC50 = Half maximal effective concentration
EL50 = median Effective Loading
EUH statement = CLP-specific Hazard statement
HSE = Health, Safety and Environment
IATA = International Air Transport Association
IC50 = Half maximal inhibitory concentration
IDHL = Immediately dangerous to life or health
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
LC50 = Median lethal concentration
LD50 = Median lethal dose
LL50 = median Lethal Loading
LogKow = logarithm of the octanol/water partition coefficient
M = Mobile
N/A = Not available
NIOSH = National Institute of Occupational Safety and Health
NOAEL = No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL = No Observed Effect Level
NOELR = No observed Effect Loading Rate
OECD = Organisation for Economic Co-operation and Development

SECTION 16: Other information

OEL = Occupational Exposure Limit
P = Persistent
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
POP = Persistent Organic Pollutants
QSAR = Quantitative Structure–Activity Relationship
REL = Recommanded Exposure Limit
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
SGG = Segregation Group
STEL = Short Term Exposure Limit
T = Toxic
TLV = Threshold Limit Value
TWA = Time Weight Average
vB = Very Bioaccumulative
vM = Very Mobile
VOC = Volatile Organic Compound
vP = Very Persistent
vPvB = Very Persistent and Very Bioaccumulative
vPvM = Very Persistent and Very Mobile
UFI = Unique Formula Identifier
UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B

Additionnal details on the supplier of the product

SECTION 16: Other information

Date of revision : 7/29/2025

Date of previous issue : 2/28/2023

Version : 3.01

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.