SAFETY DATA SHEET

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

CLAAS AGRISHIFT XE

SDS # : 36524

previous revision date : 2025/09/17

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

1.1 Product identifier

Product name : CLAAS AGRISHIFT XE

UFI : H9EY-K83Q-Q002-7D2Y

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

Identified uses
Transmission fluids Formulation additives, lubricants and greases - Industrial General use of lubricants and greases in vehicles or machinery - Industrial General use of lubricants and greases in vehicles or machinery - Professional

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]

Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H319 - Causes serious eye irritation.

Precautionary statements

Prevention : P280 - Wear eye or face protection.

Response : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Not applicable.

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 does not contain any substances that are assessed to be a PBT or a vPvB in a concentration >= 0,1 %.

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : Contains phenol, dodecyl-, branched. May cause endocrine disruption.

Other hazards which do not result in classification :

EC: 310-154-4; Endocrine disrupting properties: Human Health, Environment

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
Distillates (petroleum), hydrotreated heavy paraffinic	REACH #: 01-2119484627-25 EC: 265-157-1 CAS: 64742-54-7 Index: 649-467-00-8	≥25 - ≤50	Asp. Tox. 1, H304	-	[1]
Distillates (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	≤3	Asp. Tox. 1, H304	-	[1]
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	REACH #: 01-2119524018-47 EC: 701-249-4	≤3	Aquatic Chronic 4, H413	-	[1]
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	REACH #: 01-2119493635-27 EC: 224-235-5 CAS: 4259-15-8	<2.5	Eye Dam. 1, H318 Aquatic Chronic 2, H411	Eye Dam. 1, H318: C ≥ 50% Eye Irrit. 2, H319: 1% ≤ C < 50%	[1]
Phenol, dodecyl-, branched	REACH #: 01-2119513207-49 EC: 310-154-3 CAS: 121158-58-5 Index: 604-092-00-9	<0.3	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	M [Acute] = 10 M [Chronic] = 10	[1] [2] [3] [4]

Additional information : Mineral oil of petroleum origin. 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 of equivalent concern
[3] Substance of equivalent concern - Endocrine disrupting properties
[4] Substance with carcinogenic, mutagenic or reproductive toxicity properties

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. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact :
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact :
irritation
dryness
cracking

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 monoxide carbon dioxide Silicon Dioxide phosphorus oxides sulfur oxides Hydrogen sulfide Mercaptans Zinc oxides

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product.

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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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 : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m3, NIOSH (REL) TWA 5 mg/m3, STEL 10 mg/m3, ACGIH (TLV) TWA 5 mg/m3 (highly refined)

DNELs/DMELs

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	**DNEL - General population - Long term - Oral** 0.74 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.97 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 1.19 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 2.73 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 5.58 mg/m³ Effects: Local
Distillates (petroleum), hydrotreated light paraffinic	**DNEL - General population - Long term - Oral** 0.74 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.97 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 1.19 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 2.73 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 5.58 mg/m³ Effects: Local
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	**DNEL - Workers - Long term - Dermal** 8.33 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 3.5 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Dermal** 80 mg/kg Effects: Systemic **DNEL - Workers - Short term - Inhalation** 133.6 mg/m³ Effects: Systemic

	DNEL - General population - Long term - Dermal 4.2 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.87 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 0.25 mg/kg Effects: Systemic **DNEL - General population - Short term - Inhalation** 0.067 mg/m³ Effects: Systemic **DNEL - General population - Short term - Dermal** 40 mg/kg Effects: Systemic **DNEL - General population - Short term - Oral** 50 mg/kg Effects: Systemic
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	**DNEL - General population - Long term - Oral** 0.19 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 1.67 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 4.8 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 6.6 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 9.6 mg/kg bw/day Effects: Systemic
Phenol, dodecyl-, branched	**DNEL - General population - Long term - Oral** 0.075 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 0.075 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.25 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.79 mg/m³ Effects: Systemic

	DNEL - General population - Short term - Oral 1.26 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 13.26 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 44.18 mg/m³ Effects: Systemic **DNEL - General population - Short term - Dermal** 50 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 166 mg/kg bw/day Effects: Systemic

PNECs

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	**Secondary Poisoning** 9.33 mg/kg
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	**Fresh water - Assessment Factors** 1 mg/l **Marine water - Assessment Factors** 0.1 mg/l **Fresh water sediment - Equilibrium Partitioning** 1650 mg/kg dwt **Marine water sediment - Equilibrium Partitioning** 165 mg/kg dwt **Soil - Equilibrium Partitioning** 1340 mg/kg dwt **Sewage Treatment Plant** 100 mg/l **Secondary Poisoning** 11.11 mg/kg
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	**Fresh water - Assessment Factors** 0.004 mg/l **Marine water - Assessment Factors** 0.0046 mg/l **Fresh water sediment - Equilibrium Partitioning** 322 µg/kg dwt

	Marine water sediment - Equilibrium Partitioning 0.032 mg/kg dwt **Soil - Equilibrium Partitioning** 0.062 mg/kg dwt **Sewage Treatment Plant - Assessment Factors** 3.8 mg/l **Secondary Poisoning - Assessment Factors** 8.33 mg/kg
Phenol, dodecyl-, branched	**Fresh water** 0.000074 mg/l **Marine water** 0.0000074 mg/l **Fresh water sediment** 0.226 mg/kg dwt **Marine water sediment** 0.0266 mg/kg dwt **Soil** 0.118 mg/kg dwt **Sewage Treatment Plant** 100 mg/l **Secondary Poisoning** 4 mg/kg

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 : 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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.toAmber.

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 : >300°C [ISO 3405]

Flash point : Open cup: 238°C [ISO 2592]

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 : 0.861 to 0.871 [ISO 12185]

Density : 0.861 to 0.871 g/cm³ [15°C] [ISO 12185]

Solubility(ies) :

Media	Result
water	Not soluble

Solubility in water	:	0.868 g/l
Miscible with water	:	No.
Partition coefficient: n-octanol/ water	:	>3.5
Auto-ignition temperature	:	>250°C [ASTM E 659]
Decomposition temperature	:	Not applicable.
Viscosity	:	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): 67.5 mm^2/s [ISO 3104]

Particle characteristics

Median particle size	:	Not applicable.

9.2 Other information

Pour point	:	-33°C (-27.4°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
Distillates (petroleum), hydrotreated heavy paraffinic	**Rat - Male, Female - Oral - LD50** >5000 mg/kg OECD 401 Read across **Rabbit - Male, Female - Dermal - LD50** >5000 mg/kg OECD 402 Read across **Rat - Male, Female - Inhalation - LC50 Dusts and mists** >5 mg/l [4 hours] OECD 403 Read across
Distillates (petroleum), hydrotreated light paraffinic	**Rat - Oral - LD50** >5000 mg/kg OECD 420

	Rabbit - Dermal - LD50 >5000 mg/kg OECD 402 **Rat - Inhalation - LC50 Dusts and mists** >5 mg/l [4 hours] OECD 403
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	**Rat - Oral - LD50** >5000 mg/kg OECD 401 **Rat - Dermal - LD50** >2000 mg/kg OECD 402
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	**Rabbit - Male - Dermal - LD50** >5 g/kg OECD 402 Toxic effects: Behavioral - Somnolence (general depressed activity) Skin After topical exposure - Primary irritation **Rat - Male - Oral - LD50** 3.1 g/kg OECD 401 Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Food intake (animal) Gastrointestinal - Hypermotility, diarrhea
Phenol, dodecyl-, branched	**Rat - Male, Female - Oral - LD50** 2100 mg/kg OECD 401 **Rabbit - Male - Dermal - LD50** 15000 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)
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) Phenol, dodecyl-, branched	3100 2100	N/A 15000	N/A N/A	N/A N/A	N/A N/A

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 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.

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	:	Causes serious eye irritation.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Defatting to the skin. May cause skin dryness and irritation.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	pain or irritation watering redness
Inhalation	:	No specific data.
Skin contact	:	irritation dryness cracking
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
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	**Sub-chronic - Rat - Male, Female - Oral - NOAEL** OECD [407] 125 mg/kg
Phenol, dodecyl-, branched	**Sub-acute - Rat - Male, Female - Oral - NOAEL** OECD [407] 60 mg/kg [7 days per week] [28 days]

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

This product contains substance(s), present at a concentration equal to or greater than 0.1% by mass, known to have endocrine disrupting properties included in the list drawn up in accordance in Article 59 of the REACh Regulation or in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

This product contains one or more components that have a branched alkylphenol impurity which is very toxic to aquatic life (disclosed in section 3). Components containing the impurity have been tested and are not toxic to aquatic life. Therefore, the data in Section 3 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity

12.1 Toxicity

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	**Acute - EC50** Crustaceans - *Daphnia magna* OECD [202] >10000 mg/l [48 hours] Effect: Mobility **Acute - EC50** Algae - *Pseudokirchneriella subcapitata* OECD [201] >100 mg/l [72 hours] Effect: (growth rate) **Chronic - NOEL** Crustaceans - *Daphnia magna* >1000 mg/l [21 days] Effect: Reproduction **Chronic - NOEL** Algae - *Pseudokirchneriella subcapitata* OECD [201] >100 mg/l [72 hours] Effect: (growth rate)
Distillates (petroleum), hydrotreated light paraffinic	**Acute - EC50** Algae - *Pseudokirchnerella subcapitata* OECD [201]

	>100 mg/l [48 hours] **Acute - EC50** Daphnia - *Daphnia magna* OECD [202] >10000 mg/l [48 hours] **Chronic - NOEL** Fish - *Oncorhynchus mykiss* >1000 mg/l [21 days] **Chronic - NOEL** Daphnia - *Daphnia magna* OECD [211] 10 mg/l [21 days]
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	**Acute - EL50 - Fresh water** Algae - *Raphidocelis subcapitata* OECD [201] >1000 mg/l [96 hours] Effect: (growth rate) **Acute - EL50 - Fresh water** Daphnia OECD [202] >1000 mg/l [48 hours] Effect: Mobility
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	**Acute - EL50 - Fresh water** Algae - *Desmodesmus subspicatus* OECD [201] 240 mg/l [72 hours] Effect: (biomass) **Acute - LL50 - Fresh water** Fish - *Oncorhynchus mykiss* OECD [203] 4.4 mg/l [96 hours] Effect: Mortality **Acute - EL50 - Fresh water** Daphnia OECD [202] 75 mg/l [48 hours] Effect: Mobility **Chronic - NOEC - Fresh water** Daphnia OECD [211] 0.4 mg/l [21 days] Effect: Reproduction **Acute - LC50 - Marine water** Fish - *Cyprinodon variegatus* OECD [203] 46 mg/l [96 hours] Effect: Mortality

Phenol, dodecyl-, branched	**Acute - EC50** Daphnia - *Daphnia magna* OECD [202] 0.037 mg/l [48 hours] **Chronic - NOEC** Daphnia - *Daphnia magna* OECD [211] 0.0037 mg/l [21 days] **Acute - EC50** Algae - *Scenedesmus quadricauda* 0.36 mg/l [72 hours] **Acute - LC50** Fish 40 mg/l [96 hours]

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

12.2 Persistence and degradability

Product/substance	Result
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F 31% [28 days] - Not readily
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	OECD [301B] 13.4% [28 days]
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	OECD [301D] <5% [28 days]

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy paraffinic	-	-	Not readily
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	-	-	Not readily
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	-	-	Not readily
Phenol, dodecyl-, branched	-	-	Not readily

12.3 Bioaccumulative potential

Product/substance	$LogK_{ow}$	BCF	Potential
CLAAS AGRISHIFT XE	>3.5	-	Low
Distillates (petroleum), hydrotreated heavy paraffinic	>4	-	High
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	9.8	2.2	Low
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	3.59	-	Low
Phenol, dodecyl-, branched	6.1	1601	High

12.4 Mobility in soil

Soil/Water partition coefficient

Product/substance	logKoc	Koc
zinc bis[O,O-bis(2-ethylhexyl)] bis (dithiophosphate)	3.5	2912.11

Results of PMT and vPvM assessment

Product/substance	PMT	P	M	T	vPvM	vP	vM
Distillates (petroleum), hydrotreated heavy paraffinic	No	N/A	N/A	No	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	No	N/A	N/A	No	N/A	N/A	N/A
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	No	N/A	N/A	No	N/A	N/A	N/A
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	No	N/A	No	No	No	N/A	No
Phenol, dodecyl-, branched	N/A	N/A	N/A	Yes	N/A	N/A	N/A

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
Distillates (petroleum), hydrotreated heavy paraffinic	No	N/A	N/A	No	N/A	N/A	N/A
Distillates (petroleum), hydrotreated light paraffinic	No	N/A	N/A	No	N/A	N/A	N/A
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligomerization, carbonates, calcium salts, overbased, sulfurized including distillates (petroleum), hydrotreated, solvent-refined, solvent-dewaxed, or catalytic	No	N/A	No	No	No	N/A	No
zinc bis[O,O-bis (2-ethylhexyl)] bis (dithiophosphate)	No	N/A	N/A	No	N/A	N/A	N/A
Phenol, dodecyl-, branched	No	N/A	No	Yes	No	N/A	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

This product contains substance(s), present at a concentration equal to or greater than 0.1% by mass, known to have endocrine disrupting properties included in the list drawn up in accordance in Article 59 of the REACh Regulation or in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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 05*

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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
Phenol, dodecyl-, branched	Toxic to reproduction	Candidate	-	-
Phenol, dodecyl-, branched	Substance of equivalent concern for human health	Candidate	-	-
Phenol, dodecyl-, branched	Substance of equivalent concern for environment	Candidate	-	-

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	:	Not 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, exempted, or notified.
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)	: Not determined.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.
Thailand inventory	: Not determined.
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

SECTION 16: Other information

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
OEL = Occupational Exposure Limit
OSHA = Occupational Safety and Health Administration.
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]

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]

Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 4	AQUATIC HAZARD (LONG-TERM) - Category 4
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Repr. 1B	TOXIC TO REPRODUCTION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C

Additionnal details on the supplier of the product

SECTION 16: Other information

Date of revision	:	9/18/2025
Date of previous issue	:	9/17/2025
Version	:	11

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.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture

Code : 36524

Product name : CLAAS AGRISHIFT XE

Section 1 - Title

Short title of the exposure scenario : Formulation additives, lubricants and greases - Industrial

List of use descriptors : **Identified use name:** Formulation additives, lubricants and greases - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02

Health Contributing scenarios : **General measures applicable to all activities**
General exposures Use in contained systems Elevated temperature - PROC02
Mixing operations Closed systems Batch processes at elevated temperatures - PROC03
Mixing operations Open systems Batch processes at elevated temperatures - PROC04, PROC05
Mixing operations (open systems) - PROC04, PROC05
Process sampling - PROC04, PROC08b
Bulk transfers Dedicated facility - PROC08b
Drum/batch transfers Dedicated facility - PROC08b
Drum/batch transfers Non-dedicated facility - PROC08a
Equipment cleaning and maintenance - PROC08a, PROC08b
Drum and small package filling - PROC09
Laboratory activities - PROC15
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario : Industrial formulation of lubricant additives, lubricants and greases. Includes material transfers, mixing, large and small scale packing, sampling, maintenance.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

No exposure scenario required

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100 %. (unless stated differently)

Physical state : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure

Amounts used : Not applicable.

Frequency and duration of use/exposure : Covers daily exposures up to 8 hours (unless stated differently)

Human factors not influenced by risk management : Not applicable.

Other operational conditions affecting worker exposure : Covers percentage substance in the product up to 100% (unless stated differently)

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Avoid direct eye contact with product, also via contamination on hands.

Personal protection : Use suitable eye protection.

Contributing scenario controlling worker exposure for 3: General exposures Use in contained systems Elevated temperature

No other specific measures identified.

Contributing scenario controlling worker exposure for 4: Mixing operations Closed systems Batch processes at elevated temperatures

Ventilation control measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 5: Mixing operations Open systems Batch processes at elevated temperatures

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 4 hours.

Ventilation control measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 6: Mixing operations (open systems)

Ventilation control measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 7: Process sampling

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 1 hour per day.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 8: Bulk transfers Dedicated facility

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 4 hours.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 9: Drum/batch transfers Dedicated facility

Ventilation control measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 10: Drum/batch transfers Non-dedicated facility

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 1 hour per day.

Ventilation control measures : Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 11: Equipment cleaning and maintenance

Technical conditions and measures to control dispersion from source towards the worker : Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Engineering controls : Drain down and flush system prior to equipment break-in or maintenance.

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Clear spills immediately.

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 12: Drum and small package filling

Ventilation control measures : Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 13: Laboratory activities

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 4 hours.

Contributing scenario controlling worker exposure for 14: Storage

Engineering controls : Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment): : Used ECETOC TRA model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 3: General exposures Use in contained systems Elevated temperature

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: Mixing operations Closed systems Batch processes at elevated temperatures

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: Mixing operations Open systems Batch processes at elevated temperatures

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: Mixing operations (open systems)

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: Process sampling

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Bulk transfers Dedicated facility

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Drum/batch transfers Dedicated facility

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 10: Drum/batch transfers Non-dedicated facility

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: Equipment cleaning and maintenance

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: Drum and small package filling

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Laboratory activities

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 14: Storage

Exposure assessment (human):	:	The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction.
Health	:	Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.

Annex to the extended Safety Data Sheet (eSDS)

Industrial

Identification of the substance or mixture

Product definition : Mixture

Code : 36524

Product name : CLAAS AGRISHIFT XE

Section 1 - Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Industrial

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Industrial
Process Category: PROC01, PROC02, PROC08b, PROC09
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04, ERC07

Health Contributing scenarios : **General measures applicable to all activities**
General exposures (closed systems) - PROC01
Initial factory fill of equipment Use in contained systems - PROC02, PROC09
Initial factory fill of equipment Open systems - PROC08b
Operation of equipment containing engine oils and similar Use in contained systems - PROC01
Equipment cleaning and maintenance - PROC08b
Equipment cleaning and maintenance Operation is carried out at elevated temperature (> 20°C above ambient temperature) - PROC08b
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario : Covers general use of lubricants and greases in vehiculs or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

No exposure scenario required

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100% (unless stated differently).

Physical state : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure.

Frequency and duration of use/exposure : Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure : Assumes use at not more than 20°C above ambient temperature, unless stated differently. unless stated differently.
Assumes a good basic standard of occupational hygiene has been implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Avoid direct eye contact with product, also via contamination on hands.

Personal protection : Use suitable eye protection.

Contributing scenario controlling worker exposure for 3: General exposures (closed systems)

No other specific measures identified.

Contributing scenario controlling worker exposure for 4: Initial factory fill of equipment Use in contained systems

No other specific measures identified.

Contributing scenario controlling worker exposure for 5: Initial factory fill of equipment Open systems

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 4 hours.

Ventilation control measures : Provide a good standard of general or controlled ventilation (10 to 15 air changes per hour)

Contributing scenario controlling worker exposure for 6: Operation of equipment containing engine oils and similar Use in contained systems

No other specific measures identified.

Contributing scenario controlling worker exposure for 7: Equipment cleaning and maintenance

Technical conditions and measures at process level (source) to prevent release : Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Engineering controls : Drain down system prior to equipment break-in or maintenance.

Ventilation control measures : Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 8: Equipment cleaning and maintenance Operation is carried out at elevated temperature (> 20°C above ambient temperature)

Technical conditions and measures to control dispersion from source towards the worker : Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Engineering controls : Drain down system prior to equipment break-in or maintenance.

Ventilation control measures : Provide extract ventilation to emission points when contact with warm (>50°C) lubricant is likely.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 9: Storage

Engineering controls : Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment): : Used ECETOC TRA model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 3: General exposures (closed systems)

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: Initial factory fill of equipment Use in contained systems

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: Initial factory fill of equipment Open systems

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: Operation of equipment containing engine oils and similar Use in contained systems

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: Equipment cleaning and maintenance

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Equipment cleaning and maintenance Operation is carried out at elevated temperature (> 20°C above ambient temperature)

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Storage

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction.
Health	:	Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : Mixture

Code : 36524

Product name : CLAAS AGRISHIFT XE

Section 1 - Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Professional

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Professional
Process Category: PROC01, PROC02, PROC08a, PROC08b, PROC20
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b

Health Contributing scenarios : **General measures applicable to all activities**
Operation of equipment containing engine oils and similar Use in contained systems - PROC01
Material transfers Non-dedicated facility - PROC08a
Equipment cleaning and maintenance Dedicated facility - PROC08b, PROC20
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario : Covers general use of lubricants and greases in vehiculs or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

No exposure scenario required

Contributing scenario controlling worker exposure for 2: General measures applicable to all activities

Concentration of substance in mixture or article : Covers percentage substance in the product up to 100% (unless stated differently).

Physical state : Liquid, vapor pressure < 0.5 kPa at Standard Temperature and Pressure.

Frequency and duration of use/exposure : Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting worker exposure : Assumes use at not more than 20°C above ambient temperature, unless stated differently. unless stated differently.
Assumes a good basic standard of occupational hygiene has been implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Advice on general occupational hygiene : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Avoid direct eye contact with product, also via contamination on hands.

Personal protection : Use suitable eye protection.

Contributing scenario controlling worker exposure for 3: Operation of equipment containing engine oils and similar Use in contained systems

No other specific measures identified.

Contributing scenario controlling worker exposure for 4: Material transfers Non-dedicated facility

Frequency and duration of use/exposure : Avoid carrying out activities involving exposure for more than 4 hours.

Conditions and measures related to personal protection, hygiene and health evaluation

Personal protection : Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 5: Equipment cleaning and maintenance Dedicated facility

Technical conditions and measures at process level (source) to prevent release : Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Engineering controls : Drain down system prior to equipment break-in or maintenance.

Contributing scenario controlling worker exposure for 6: Storage

Engineering controls : Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment): : Used ECETOC TRA model.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 2: General measures applicable to all activities

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 3: Operation of equipment containing engine oils and similar Use in contained systems

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: Material transfers Non-dedicated facility

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: Equipment cleaning and maintenance Dedicated facility

Exposure assessment (human): : The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: Storage

Exposure assessment (human):	:	The risk Management Mesures/Operational Conditions that are identified in the Exposure Scenario are the outcome of a quantitative and qualitative assessment that covers this product.
Exposure estimation and reference to its source	:	Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	:	Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required. For further information see www.atiel.org/reach/introduction.
Health	:	Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. For further information see www.atiel.org/reach/introduction.

Additional good practice advice beyond the REACH CSA

Environment	:	Not available.
Health	:	Not available.