

PTU Synthetic Lubricant 2

10-4105,19351882 ACDelco PTU Synthetic Lubricant

SDS no. PTU Synthetic Lubricant

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

1.1 Product identifier

Product name : PTU Synthetic Lubricant 2
Product type : Liquid.

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

Petrochemical industry: Lubricants Gear oils

See section 7.3 and where applicable the annex to this Safety Data Sheet for further information on the relevant uses.

1.3 Details of the supplier of the safety data sheet

Afton Chemical Limited Euro-Tech Centre London Road, Bracknell, RG12 2UW, England Tel: +44 1344 304141	Afton Chemical Limited Ashburton Road West, Trafford Park, Manchester, M17 1SX, England Tel: +44 161 876 5673	Afton Chemical SPRL (Feluy Plant) Rue de Scoufflény, 50 B-7191 Ecaussinnes Lalaing, Belgium Tel: +32 67 286211
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e-mail address of person responsible for this SDS : Lubricant and Fuel additives: msds@aftonchemical.com
 Metalworking Fluids: msds.mwf@aftonchemical.com

1.4 Emergency telephone number

<p>Telephone number :</p> <ul style="list-style-type: none"> +43-13649237 (Austria) +32-28083237 (Belgium) +359-32570104 (Bulgaria) +385-17776920 (Croatia) +420-228880039 (Czech Republic) +45-69918573 (Denmark) +358-942419014 (Finland) +33-975181407 (France) +36-18088425 (Hungary) +353-19014670 (Ireland) +39-0245557031 (Italy) +352-20202416 (Luxembourg) +31-858880596 (The Netherlands) +47-21930678 (Norway) +48-223988029 (Poland) +351-308801773 (Portugal) +421-233057972 (Slovakia) +38-618888016 (Slovenia) +46-852503403 (Swedish) +41-435082011 (Switzerland) +380-947101374 (Ukraine) +44-8708200418 (UK) 	<ul style="list-style-type: none"> +1-703-527-3887 (International) +65-3158-1349 (Asia Pacific) +61-290372994 (Australia) 4001-204937 (China) 000-800-100-7141 (India) +81-345209637 (Japan) 00-308-13-2549 (South Korea) +1-703-741-5979 (Spanish language) 1-800-424-9300 (US & Canada)
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Hours of operation : 24 hours a day, 7 days a week

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]

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

Aquatic Chronic 3, H412

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R52/53

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

SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.
 See Section 12 for environmental precautions.
 See Section 16 for the full text of the R phrases or H statements declared above.

2.2 Label elements

Signal word	: No signal word.
Hazard statements	: Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Avoid release to the environment.
Response	: Not applicable.
Storage	: Store in a well-ventilated place.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Contains Long-chain alkyl amine and Alkyl polysulfides. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Product definition : Mixture

Product / ingredient name	Identifiers	%	67/548/EEC	Classification	
				Regulation (EC) No. 1272/2008 [CLP]	Type
Mineral oil	Mixture	1 - 4.9	Not classified.	Not classified.	[2]
Methacrylate copolymer	Proprietary	1 - 4.9	Xi; R36	Eye Irrit. 2, H319	[1]
Alkyl polysulfides	EC: 273-103-3 CAS: 68937-96-2	0.5 - 0.99	Xi; R38 R43 N; R50/53	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
Long-chain alkyl amine	REACH #: 01-2119456798-18 EC: 273-279-1 CAS: 68955-53-3	0.1 - 0.5	T; R23/24 Xn; R22 C; R34 R43 N; R50/53	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Skin Sens. 1A, H317 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
Long-chain alkyl amine with substituted heteromonocyclic	Proprietary	0.1 - 0.5	Xn; R20 Xi; R41, R38 N; R50/53	Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
Long-chain alkenyl amine	EC: 204-015-5 CAS: 112-90-3	0.1 - 0.5	Xn; R22, R48/22, R65 C; R34 N; R50/53	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]

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

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 or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

SECTION 3: Composition/information on ingredients

The mineral oils in the product contain < 3% DMSO extract (IP 346).

If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, the registration date has not yet come due or this information is proprietary.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, 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 if irritation occurs.
- Inhalation** : If inhaled, remove to fresh air. 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. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation occurs. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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

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.

Over-exposure signs/symptoms

- 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** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

SECTION 5: Firefighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
 carbon dioxide
 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. 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). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Wash spillages into an effluent treatment plant or proceed as follows. 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

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

SECTION 7: Handling and storage

- 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. Avoid release to the environment. 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.
- 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

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters**Occupational exposure limits**

Product / ingredient name	Exposure limit values
Europe Mineral oil	EH40-MEL (Europe, 2002). TWA: 5 mg/m ³ 8 hours.
Belgium Mineral oil	Lijst Grenswaarden / Valeurs Limites (Belgium). TWA: 5 mg/m ³ 8 hours. STEL: 10 mg/m ³ 15 minutes.
Bulgaria Mineral oil	РБ МТСП и МЗ Наредба №13/2003 (Bulgaria). Limit value 8 hours: 5 mg/m ³
Czech Republic Mineral oil	178/2001 (Czech Republic). TWA: 5 mg/m ³ 8 hours. CEIL: 10 mg/m ³
Denmark Mineral oil	Arbejdstilsynet (Denmark). GV: 1 mg/m ³
Finland Mineral oil	Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland). TWA: 5 mg/m ³ 8 hours.
Greece Mineral oil	PD 90/1999 (Greece). TWA: 5 mg/m ³ 8 hours.
Hungary Mineral oil	EüM-SzCsM (Hungary). CEIL: 5 mg/m ³
Ireland Mineral oil	NAOSH (Ireland). OELV: 5 mg/m ³ 8 hours.
Italy Mineral oil	Ministero della Salute (Italy). TWA: 5 mg/m ³ 8 hours.
Latvia	

SECTION 8: Exposure controls/personal protection

Mineral oil	LV Nat. Standardisation and Meterological Centre (Latvia). TWA: 5 mg/m ³ 8 hours.
Lithuania	
Mineral oil	Del Lietuvos Higienos Normos (Lithuania). TWA: 1 mg/m ³ 8 hours. STEL: 3 mg/m ³ 15 minutes.
Netherlands	
Mineral oil	Nationale MAC-lijst (Netherlands). TGG: 5 mg/m ³ 8 hours.
Norway	
Mineral oil	Arbeidstilsynet (Norway). AN: 1 mg/m ³
Poland	
Mineral oil	Rozporządzenie Ministra Pracy i Polityki Społecznej (Poland). TWA: 5 mg/m ³ 8 hours. STEL: 10 mg/m ³ 15 minutes.
Portugal	
Mineral oil	Instituto Português da Qualidade (Portugal). TLV-TWA: 5 mg/m ³ 8 hours. STEL: 10 mg/m ³
Romania	
Mineral oil	Ministerul Muncii, Solidarității Sociale și Familiei, și Ministerul Sănătății Publice (Romania). VLA: 5 mg/m ³ 8 hours. Termen scurt: 10 mg/m ³ 15 minutes.
Slovakia	
Mineral oil	Nariadenie vlády Slovenskej republiky (Slovakia). TWA: 5 mg/m ³ 8 hours.
Spain	
Mineral oil	INSHT (Spain). VLA-ED: 5 mg/m ³ 8 hours. VLA-EC: 10 mg/m ³ 15 minutes.
Sweden	
Mineral oil	AFS 2005:17 (Sweden). NGV: 1 mg/m ³ KTV: 3 mg/m ³

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived No Effect Level / Predicted No Effect Concentration

If DNEL's or PNEC's are shown, these are for the potential Risk Determining Substances for the product. The specific Risk Determining Substances for the product are listed in the exposure scenarios found in the annex to this Safety Data Sheet.

Derived No Effect Level

No DNELs/DMELs available.

Predicted No Effect Concentration

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

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.

SECTION 8: Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 480 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s). Seek professional advice prior to respirator selection and use. Select respirator based on suitability to provide adequate worker protection for given working conditions and level of airborne contaminant.
- 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

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: 182°C [Minimum Pensky-Martens.]
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable. (liquid).
- Upper/lower flammability or explosive limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.853
- Density** : 0.88 g/cm³ [15.6°C]
- Solubility(ies)** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C): 0.8575 cm²/s
15.2 cSt @ 100°C
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.

9.2 Other information

No additional information.

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** : Under recommended handling and storage conditions the product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : High temperatures, sparks, and open flames.
- 10.5 Incompatible materials** : Strong oxidizing and reducing agents.
- 10.6 Hazardous decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Mineral oil	LC50 Inhalation Vapor	Rat	>5000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Alkyl polysulfides	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2551 mg/kg	-
	LD50 Oral	Rat	6500 mg/kg	-
Long-chain alkyl amine	LC50 Inhalation Vapor	Rat - Female	1.19 mg/l	4 hours
	LD50 Dermal	Rat	251 mg/kg	-
	LD50 Oral	Rat	612 mg/kg	-
Long-chain alkyl amine with substituted heteromonocyclic	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
Long-chain alkenyl amine	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	1689 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Conclusion/Summary

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

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

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

Sensitization

Conclusion/Summary

Skin : Not classified as a skin sensitizer. Based on test data of the skin sensitizing ingredient/s at similar or higher concentrations than are present in this product.

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

Mutagenicity

Conclusion/Summary

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

Carcinogenicity

Conclusion/Summary

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

Reproductive toxicity

Conclusion/Summary

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

Teratogenicity

Conclusion/Summary

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

Specific target organ toxicity (single exposure)

Product / ingredient name	Category	Route of exposure	Target organs
Long-chain alkyl amine	Category 3	Not applicable.	Respiratory tract irritation
Long-chain alkenyl amine	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product / ingredient name	Category	Route of exposure	Target organs
Long-chain alkenyl amine	Category 2	Not determined	Not determined

SECTION 11: Toxicological information**Aspiration hazard**

Product / ingredient name	Result
Long-chain alkenyl amine	ASPIRATION HAZARD - Category 1

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**Short term exposure**

Potential immediate effects : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation. Ingestion may cause gastrointestinal irritation and diarrhea.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

Potential delayed effects : Not available.

Potential chronic health effects

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

Conclusion/Summary : Based on available data, the classification criteria are not met.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product / ingredient name	Result	Species	Exposure
Long-chain alkenyl amine	EC50 0.03 mg/l EC50 0.011 mg/l LC50 0.11 mg/l	Algae Daphnia Fish	96 hours 48 hours 96 hours

Conclusion/Summary : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.3 Bioaccumulative potential

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

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

SECTION 12: Ecological information

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

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	IATA
14.1 UN 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.
Additional information	-	-	-	-

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 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

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

International Inventory Status

- Europe** : At least one component is not listed.
- Australia** : At least one component is not listed.
- Canada** : At least one component is not listed.
- China** : At least one component is not listed.
- Japan** : At least one component is not listed.
- Republic of Korea** : At least one component is not listed.
- New Zealand** : At least one component is not listed.
- Philippines** : At least one component is not listed.
- Taiwan.** : All components are listed or exempted.
- United States** : All components are listed or exempted.

Other EU regulations

SECTION 15: Regulatory information

Germany

Hazard class for water : 3 Appendix No. 4

Sweden

Product registration number : Not applicable.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

When included, the exposure scenarios were determined based on a review of the risk determining substances and the intended product application. Safe use is demonstrated through using the ATC, ATIEL and Afton systems for Generic Exposure Scenarios for mixtures. Further information on these systems is available by contacting Afton at the email address in section 1.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Aquatic Chronic 3, H412	Expert judgment

Europe

Full text of abbreviated H statements :

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very 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. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1, H410	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 3, H412	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Eye Dam. 1, H318	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A, H317	SKIN SENSITIZATION - Category 1A
Skin Sens. 1B, H317	SKIN SENSITIZATION - Category 1B
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SECTION 16: Other information

Full text of abbreviated R phrases : R23/24- Toxic by inhalation and in contact with skin.
R22- Harmful if swallowed.
R48/22- Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R65- Harmful: may cause lung damage if swallowed.
R34- Causes burns.
R41- Risk of serious damage to eyes.
R36- Irritating to eyes.
R38- Irritating to skin.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : T - Toxic
C - Corrosive
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

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Notice to reader

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