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

· **Product identifier**

· **Trade name: Oilfino Gradus 460**

· **Article number:** 7650009
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the mixture** Gear oil

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
oilfino Mineralöl GmbH
Werkstr. 12
D- 25497 Prisdorf
info@oilfino.com
Tel.: +49 (0) 4101 / 79900
www.oilfino.com

· **Further information obtainable from:** Sales
· **Emergency telephone number:**
Poison Information Centre North (Göttingen)
Phone +49 (0)551-19240

SECTION 2: Hazards identification

· **Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements**
H412 Harmful to aquatic life with long lasting effects.
· **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

· **Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**		
EC number: 701-175-2	Amine, C10-14-tert-Alkyl Acute Tox. 3, H311; Acute Tox. 2, H330; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1A; H317: C≥ 6.7 %	≥0.25-<1%
CAS: 1213789-63-9 EC number: 627-034-4 Reg.nr.: 01-2119473797-19	C16-18- (even, saturated and unsaturated) alkylamines STOT RE 2, H373; Asp. Tox. 1, H304; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Acute Tox. 4, H302; STOT SE 3, H335	≥0.025-<0.25%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **Description of first aid measures**
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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SECTION 5: Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
Sand
Foam
Water haze
CO2, powder or water spray. Fight larger fires with water spray.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **Precautions for safe handling** No special precautions are necessary if used correctly.
· **Information about fire - and explosion protection:** No special measures required.

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· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.
· **Storage class (TRGS):** 10/12
· **Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· **Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs**		
Amine, C10-14-tert-Alkyl		
Inhalative	DNEL long-term - inhalation local effects	12.1 mg/m³ (Worker)
		1.2 mg/m³ (general public)
	DNEL Long-term – inhalation, systemic effects	2.5 mg/m³/d (general public)
1213789-63-9 C16-18- (even, saturated and unsaturated) alkylamines		
Inhalative	DNEL long-term - inhalation local effects	1 mg/m³ (Worker)
	DNEL Long-term – inhalation, systemic effects	0.38 mg/m³/d (Worker)
	DNEL Acute - inhalation, local effects	1 mg/m³ (Worker)

· **PNECs**	
1213789-63-9 C16-18- (even, saturated and unsaturated) alkylamines	
PNEC short term, fresh water	0.000026 mg/l (Aquatic organisms)
PNEC short term, sea water	0.0000026 mg/l (Aquatic organisms)
PNEC short term fresh water sediment	3.76 mg/kg (Aquatic organisms)
PNEC short term soil	10 mg/kg (teresstric organisms)
PNEC short term sea water sediment	0.376 mg/kg (Aquatic organisms)

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.

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· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
· **Respiratory protection:** Not required.
· **Hand protection**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation


Protective gloves

· **Material of gloves** Nitrile rubber, NBR
· **Penetration time of glove material**
For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 16523-1:2015: Level 6).
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye/face protection**


Tightly sealed goggles

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SECTION 9: Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Fluid
· **Colour:**	Light brown
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	-36 °C
· **Boiling point or initial boiling point and boiling range**	Undetermined.

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· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	246 °C
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity at 40 °C**	460 mm²/s
· **Viscosity at 100°C:**	
· **Dynamic:**	Not determined.
· **Solubility**	
· **water:**	Not miscible or difficult to mix.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure:**	Not determined.
· **Density and/or relative density**	
· **Density:**	Not determined.
· **Relative density**	Not determined.
· **Density (@15°C)**	0.859 g/cm³
· **Vapour density**	Not determined.

· **Other information**	
· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Solvent content:**	
· **VOC (EC)**	0.00 %
· **Solids content:**	0.0 %
· **Change in condition**	
· **Evaporation rate**	Not determined.

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void

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· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

SECTION 10: Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

· **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
ATE (Acute Toxicity Estimates)		
Dermal	LD50	>83,667 mg/kg
Inhalative	LD50	>16.7 mg/kg

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Amine, C10-14-tert-Alkyl		
Oral	LD50	612 mg/kg (rat)
Dermal	LD50	251 mg/kg (rabbit)
1213789-63-9 C16-18- (even, saturated and unsaturated) alkylamines		
Oral	LD50	>1,200 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
· **Respiratory or skin sensitisation** 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.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-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 other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

*
SECTION 12: Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
Amine, C10-14-tert-Alkyl	
LC50 (96) ppm	>157-<249 ppm /Gas (rat)
LC50 (96h) mg/ltr.	1.3 mg/ltr (Fish)
EC50 (72h)	0.435 mg/l (algae)
EC50 (48h)	2.5 mg/ltr. (Daphnia magna)
NOEC	0.05 mg/l /3d (algae)
	0.078 mg/l (Fish)
1213789-63-9 C16-18- (even, saturated and unsaturated) alkylamines	
LC50 (96h) mg/ltr.	>0.84 mg/ltr (Fish, minnows)
EC50 (48h)	0.32 mg/l (daphnia)
EC50 (72h)	>0.39 mg/l (algae)

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NOEC	0.63 mg/l /4d (Fish)

· **Persistence and degradability** No further relevant information available.
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **Other adverse effects** No further relevant information available.
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Self-classification according to Annex 1 (to § 4 paragraph 1, § 8 paragraph 1 and § 10 paragraph 2) of the Ordinance on Facilities for Handling Substances Hazardous to Water 1, 2 (AwSV).
Harmful to aquatic organisms

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SECTION 13: Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **UN number or ID number**	
· **ADR, IMDG, IATA**	not regulated
· **UN proper shipping name**	
· **ADR, IMDG, IATA**	not regulated

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· **Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA**	
· **Class**	not regulated
· **Packing group**	
· **ADR, IMDG, IATA**	not regulated
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Not applicable.
· **Maritime transport in bulk according to IMO instruments**	Not applicable.
· **UN "Model Regulation":**	not regulated

*
SECTION 15: Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture: (Substances not listed)**

None of the ingredients is listed.

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **National regulations:**
· **VOC (EU)** 0.0 g/l
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information

· **Disclaimer**
This safety data sheet contains only safety relevant information. The information is based on the state of our knowledge at the time of revision, however, it does not constitute a guarantee of product properties, product information or product specifications and does not establish a contractual legal relationship. This document is only valid in its unchanged form. In the event of changes by third parties, the exhibitor accepts no responsibility for form and content or for any damages or claims arising from such changes. The information is not transferable to other products. If the product named in this safety data sheet is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise. The data sheet does not release the user

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from the obligation to ensure that he acts in accordance with all regulations in connection with his activity.

· **Relevant phrases**
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.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
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.

· **Contact:** MSDS authorized Person

· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**