

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

KAESER GREASE S2

Further trade names

KAESER GREASE S2, product code 894363.00010

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Motor Grease

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet**Supplier**

Company name: KAESER Kompressoren SE
Street: Carl- Kaeser- Strasse 26
Place: D-96450 Coburg
Telephone: +49(0)9561/640-0
Responsible Department: sdb.de@kaeser.com

1.4. Emergency telephone number:

Giftinformationszentrum Nord Goettingen + 49 (0) 551 19240 (Poison Information Centre Goettingen)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Harmful to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard statements**

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
68187-67-7	Amines, C12-14-alkyl, isoctyl phosphates			1 - < 5 %

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	269-119-5		01-2120286234-55	
	Acute Tox. 4, Acute Tox. 4, Skin Corr. 1C, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 2; H312 H302 H314 H318 H400 H411 EUH071			
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol			0,1 - < 0,25 %
	202-414-9		01-2119777867-13	
	Acute Tox. 4, Skin Corr. 1C, Eye Dam. 1, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H314 H318 H373 H400 H410			

Full text of H and EUH statements: see section 16.

Specific concentration limits and M-factors

CAS No	EC No	Chemical name	Quantity
		Specific concentration limits and M-factors	
95-38-5	202-414-9	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	0,1 - < 0,25 %
	M akut; H400: M=10 M chron.; H410: M=1		

Further Information

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation:

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of skin irritation, consult a physician.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

After eye contact: No risks worthy of mention.

Inhalation: No risks worthy of mention.

Skin contact: No risks worthy of mention.

ingestion.: No risks worthy of mention.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

In case of fire:

Carbon dioxide (CO₂)

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Dry extinguishing powder

Foam

In case of major fire and large quantities:

Water spray jet

Unsuitable extinguishing media

High power water jet

5.2. Special hazards arising from the substance or mixtureCan be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Sulfur oxides.**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. In case of fire and/or explosion do not breathe fumes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

For emergency responders: Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

For non-emergency personnel: Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically.

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin, eyes and clothes.

Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

Usual measures for fire prevention.

Further information on handling

Advices on general occupational hygiene: See section 8.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed and in a well-ventilated place.

Keep only in original container.

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Hints on joint storage

Do not store together with: Gas. Explosive hazardous substances. Oxidising substances (solid). Oxidising substances (liquid) Radioactive substances. Infectious substances.
Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect against: UV-radiation/sunlight.. Heat.

7.3. Specific end use(s)

refer to section 1.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol			
Worker DNEL, long-term		inhalation	systemic	0,46 mg/m ³
Worker DNEL, acute		inhalation	systemic	14 mg/m ³
Worker DNEL, long-term		dermal	systemic	0,06 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	2 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment		Value
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	
Freshwater		0 mg/l
Freshwater (intermittent releases)		0 mg/l
Marine water		0 mg/l
Freshwater sediment		0,376 mg/kg
Marine sediment		0,038 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,27 mg/l
Soil		0,075 mg/kg

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation.

Protective and hygiene measures

Always close containers tightly after the removal of product. Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work. Take off contaminated clothing.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves. BS EN 374

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Suitable material: NBR (Nitrile rubber). CR (polychloroprene, chloroprene rubber)

Thickness of the glove material: 0,35 mm

Breakthrough time > 480 min.

Check leak tightness/impermeability prior to use. Breakthrough times and swelling properties of the material must be taken into consideration.

Skin protection

Protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	solid, viscous
Colour:	green
Odour:	Characteristic

pH-Value:

Test result	Test method
Not determined	Not applicable

Changes in the physical state

Melting point:

>316 °C No information available.

Initial boiling point and boiling range:

Not determined Not applicable

Pour point:

Not determined Not applicable

Flash point:

>204 °C No information available.

Sustaining combustion:

No data available Not applicable

Flammability

Solid:

Not applicable

Gas:

Not applicable

Explosive properties

none

Lower explosion limits:

Not determined

Upper explosion limits:

Not determined

Ignition temperature:

Not determined Not applicable

Auto-ignition temperature

Gas:

Not determined

Decomposition temperature:

Not determined Not applicable

Oxidizing properties

none

Vapour pressure:
(at 20 °C)

< 0,13 hPa -

Vapour pressure:

Density (at 15 °C):

0,8 g/cm³ No information available.

Bulk density:

Not determined

Water solubility:

Immiscible Not applicable

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Solubility in other solvents

Not determined

Partition coefficient:

The product has not been tested.

Viscosity / dynamic:

Not determined Not applicable

Viscosity / kinematic:
(at 40 °C)

87 mm²/s ASTM D 445

Flow time:

Not determined Not applicable

Vapour density:

Not determined Not applicable

Evaporation rate:

Not determined Not applicable

Solvent separation test:

Not determined

Solvent content:

Not determined

9.2. Other information

Solid content:

Not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Reacts with : Oxidizing agents, strong.

10.4. Conditions to avoid

UV-radiation/sunlight. Heat

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x). Sulfur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68187-67-7	Amines, C12-14-alkyl, isooctyl phosphates				
	oral	LD50 > 200 mg/kg	Rat	ECHA Dossier	OECD Guideline 423
	dermal	ATE 1100 mg/kg			
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol				
	oral	LD50 ca. 1265 mg/kg	Rat	ECHA Dossier	OECD Guideline 401

Irritation and corrosivity

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

Irritant effect on the eye: slightly irritant but not relevant for classification. (Expert judgement and weight of evidence determination.)

Irritant effect on the skin: slightly irritant but not relevant for classification. (Expert judgement and weight of evidence determination.)

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

In-vitro mutagenicity:

Method: OECD 471 (Ames test).

Literature information: ECHA Dossier

Result: negative.

Reproductive toxicity/Subacute oral toxicity:

Method: Species: OECD 422.

Species: Rat.

Exposure time: 51d.

Result: NOAEL > 20 mg/kg bw/day.

Literature information: ECHA Dossier

Amines, C12-14-alkyl, isooctyl phosphates:

In-vitro mutagenicity:

Method: OECD 471 (Ames test). Literature information

Result: negative.

Literature information: ECHA Dossier

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.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information**12.1. Toxicity**

Chronic daphnia toxicity:

Species: Daphnia magna

Exposure time: 21 d

Result / evaluation: NOELR = 1 mg/l, Analogous to products of similar composition.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
68187-67-7	Amines, C12-14-alkyl, isooctyl phosphates					
	Acute algae toxicity	ErC50	0,8 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA Dossier
	Acute crustacea toxicity	EC50	17 mg/l	48 h	Daphnia magna	ECHA Dossier
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol					

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	Acute algae toxicity	ErC50	0,03 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,163	48 h	Daphnia magna	ECHA Dossier	OECD Guideline 202

12.2. Persistence and degradability

Due to its low solubility in water the product is almost completely mechanically separated in biological sewage plants.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
68187-67-7	Amines, C12-14-alkyl, isooctyl phosphates			
	EU Method C.4-D	35 %	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol			
	OECD Guideline 301 B	1%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			

12.3. Bioaccumulative potential

Due to the consistency along with the low water solubility of the product a bioavailability is unlikely.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
68187-67-7	Amines, C12-14-alkyl, isooctyl phosphates	73,6
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	8,4

BCF

CAS No	Chemical name	BCF	Species	Source
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	1,65		calc.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

Not determined

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Waste codes/waste designations according to (EWC) European Waste Catalogue.

List of Wastes Code - residues/unused products

120112 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; spent waxes and fats; hazardous waste

List of Wastes Code - used product

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120112 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; spent waxes and fats; hazardous waste

List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); mixed packaging

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	-

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name:	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es):	No dangerous good in sense of these transport regulations.
14.4. Packing group:	-

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

See section 8.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC):	Not determined
2004/42/EC (VOC):	Not determined
Information according to 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Additional information

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 appendix XVII: Not relevant (Mixtures)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D): 2 - obviously hazardous to water

Additional information

Approval according to USDA H1/NSF, registry number -

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

SECTION 16: Other information**Changes**

Rev. 1.0 ; 23.09.2020. Initial release.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Further Information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)