according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/1500 häfer GmbH

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FSG-Plastic Cleaner, Type DN

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

1.1. Product identifier

Trade name/designation:

FSG-Plastic Cleaner, Type DN

Article No.:

RE16000

UFI:

0P9E-C1CR-900A-N3CA

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

Cleaner

Detergents and cleaning products (including solvent based),

Commercial use of general purpose surface cleaners.

Relevant identified uses:

Life cycle stage [LCS]

IS: Use at industrial sites

Sector of uses [SU]

SU 6a: Manufacture of wood and wood products

Product Categories [PC]

PC 35: Washing and cleaning products

Article categories [AC]

AC 11: Wood articles

1.3. Details of the supplier of the safety data sheet

Manufacturer: distributor:

FSG Schäfer GmbH

Boschstraße 14 48703 Stadtlohn

GERMANY

Telephone: +49 (0) 25 63 - 93 95 - 0

Telefax: +49 (0) 25 63 - 93 95 - 25 **E-mail:** verkauf@fsg-schaefer.de

Website: www.fsg-schaefer.de

Ostermann France SAS

FR

2. rue de l'Atelier 38160 Saint-Marcellin

France

Telephone: + 33 (0) 4 76 36 57 60

Telefax: + 33 (0) 4 76 36 57 61 **E-mail:** vente.fr@ostermann.eu

Website: www.ostermann.eu

E-mail (competent person): sdb@fsg-schaefer.de

Only for information: National Poisons Information Service (Birmingham Unit): 844 892 0111

1.4. Emergency telephone number

24h: Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergencydepartment., Office FSG: +49 (0) 2563 93950. (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			
Hazard classes and hazard categories	Hazard statements	Classification procedure	
flammable liquids (Flam. Liq. 2)	H225: Highly flammable liquid and vapour.		
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.		
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.		

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Hazard classes and hazard categories	Hazard statements	Classification procedure
	H412: Harmful to aquatic life with long lasting effects.	

2.2. Label elements

Labelling according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 Hazard pictograms:





Clares

ame Exclamation mark

Signal word: Danger

Hazard components for labelling:

n-Hexan; Kohlenwasserstoffe C7-C9, n-Alkane, Isoalkane, Cyclene; Kohlenwasserstoffe, C9-C10, n-Alkane, Isoalkane, Cyclene, < 2% Aromaten; Kohlenwasserstoffe, C9-C11, Isolkane, Cycloalkane, <2% Aromaten

. ,	s for physical hazards
H225	Highly flammable liquid and vapour.

Hazard statements for health hazards		
H302	Harmful if swallowed.	
H336	May cause drowsiness or dizziness.	

Hazard statements for environmental hazards		
H412	Harmful to aquatic life with long lasting effects.	

Supplemental hazard information: none

Precautionary statements Prevention		
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P240	Ground/bond container and receiving equipment.	
P273	Avoid release to the environment.	
	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ Personal protection.	

Precautionary statements Response	
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/First aider if you feel unwell.

Precautionary statements Disposal		
P501	Dispose of contents/container to Disposal methods.	

Special rules for supplemental label elements for certain mixtures:

58,0 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal). 2,4 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

* 3.2. Mixtures

Description:

Mixture of following listed substances with nonhazardous additions.

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Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	Concentration
CAS No.: 64-17-5 EC No.: 200-578-6 Index No.: 603-002-00-5	ethanol Flam. Liq. 2 (H225) Danger	34 - < 70 weight-%
EC No.: 920-750-0 REACH No.: 01-2119473851-33-0XXX	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), STOT SE 3 (H336) O: Danger	11 - ≤ 19.6 weight-%
EC No.: 927-241-2 REACH No.: 01-2119471843-32-XXXX	Hydrocarbons, C9-C10, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics Aquatic Chronic 3 (H412), Asp. Tox. 1 (H304), Flam. Liq. 3 (H226), STOT SE 3 (H336) Danger	8 - ≤ 14 weight-%
CAS No.: 78-93-3 EC No.: 201-159-0 Index No.: 606-002-00-3	butanone Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Danger EUH066	1 - < 1.8 weight-%
CAS No.: 110-54-3 EC No.: 203-777-6 Index No.: 601-037-00-0	n-hexane Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), Repr. 2 (H361f***), STOT RE 2 (H373**), STOT SE 3 (H336), Skin Irrit. 2 (H315)	0 - ≤ 0.5 weight-%
CAS No.: 110-82-7 EC No.: 203-806-2 Index No.: 601-017-00-1	cyclohexane Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Asp. Tox. 1 (H304), Flam. Liq. 2 (H225), STOT SE 3 (H336), Skin Irrit. 2 (H315) Danger	0 - ≤ 0.4 weight-%
CAS No.: 5392-40-5 EC No.: 226-394-6 Index No.: 605-019-00-3	citral Skin Irrit. 2 (H315), Skin Sens. 1 (H317) • Warning	0 - ≤ 0.0399 weight-%

Full text of H- and EUH-phrases: see section 16.

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). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention if you feel unwell.

In case of skin contact:

Take off immediately all contaminated clothing. In case of skin irritation, consult a physician. Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap.

Following ingestion:

Rinse mouth. Get medical advice/attention if you feel unwell. Let 1 glass of water be drunken in little sips (dilution effect).

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

Dizziness, Dizziness.

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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:

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2).

Fire extinguishers Fire class B.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Highly flammable, Combustible.

Hazardous combustion products:

In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide Pyrolysis products, toxic, carbon black.

In case of fire: Gases/vapours, toxic.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Special danger of slipping by leaking/spilling product. Remove persons to safety. Keep locked up and out of reach of children.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8.

6.2. Environmental precautions

Discharge into the environment must be avoided. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Soak up inert absorbent and dispose as waste requiring special attention.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:

Clean with detergents. Avoid solvent cleaners. Water (with cleaning agent).

6.4. Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

6.5. Additional information

Use appropriate container to avoid environmental contamination.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Do not breathe gas/fumes/vapour/spray. Repeated exposure may cause skin dryness or cracking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Wear personal protection equipment (refer to section 8).

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Keep out of reach of children.

Fire prevent measures:

Highly flammable, Take precautionary measures against static discharge. Keep away from sources of ignition - No smoking.

Measures to prevent aerosol and dust generation:

If possible, do not use for spraying. Wipe for cleaning

Environmental precautions:

Discharge into the environment must be avoided.

Advices on general occupational hygiene

Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Material, solvent-resistant, Keep/Store only in original container.

Requirements for storage rooms and vessels:

Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on storage assembly:

Keep away from combustible material. Do not store together with:

Combustible substances of acute toxicity, category 1 and 2 / very toxic substances

Non-combustible substances of acute toxicity, category 1 and 2 / very toxic substances

Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects

Non-combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects.

Storage class (TRGS 510, Germany): 3 - Flammable liquids

Further information on storage conditions:

Protect from sunlight. Store in a well-ventilated place.

7.3. Specific end use(s)

Recommendation:

Detergents and cleaning products (including solvent based),

Commercial use of general purpose surface cleaners. If possible, do not use for spraying.

Industrial sector specific solutions:

Stripper, irritant, containing solvents with skin absorptive substances.

GISCODE:

GG60

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	 Long-term occupational exposure limit value Short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark
WEL (GB)	ethanol CAS No.: 64-17-5 EC No.: 200-578-6	① 1,000 ppm (1,920 mg/m³)
IOELV (EU)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	① 200 ppm (600 mg/m³) ② 300 ppm (900 mg/m³)
WEL (GB)	butanone CAS No.: 78-93-3 EC No.: 201-159-0	① 200 ppm (600 mg/m³) ② 300 ppm (899 mg/m³)
IOELV (EU)	n-hexane CAS No.: 110-54-3 EC No.: 203-777-6	① 20 ppm (72 mg/m³)
WEL (GB)	n-hexane CAS No.: 110-54-3 EC No.: 203-777-6	① 20 ppm (72 mg/m³)
IOELV (EU)	cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	① 200 ppm (700 mg/m³)
WEL (GB)	cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	① 100 ppm (350 mg/m³) ② 300 ppm (1,050 mg/m³)

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	1 Parameter2 Test material3 Time of sampling:4 Remark
BMGV (GB) from 3 Jan 1900	butanone CAS No.: 78-93-3 EC No.: 201-159-0	70 μmol/L	 butan 2-one urine end of exposure or end of shift

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type
		② Exposure route
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	114 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m ³	① DNEL worker ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	DNEL Consumer Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	343 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects

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Substance name	DNEL value	① DNEL type
		② Exposure route
ethanol		① DNEL Consumer
CAS No.: 64-17-5 EC No.: 200-578-6	day	② Long-term - dermal, systemic effects
ethanol	87 mg/kg bw/	① DNEL worker
CAS No.: 64-17-5	day	② Long-term - oral, systemic effects
EC No.: 200-578-6	87 mg/kg bw/	① DNFI worker
CAS No.: 64-17-5	day	② Acute – oral, systemic effects
EC No.: 200-578-6		Acute - oral, systemic effects
Hydrocarbons, C7-C9, n-alkanes,	2,035 mg/m ³	① DNEL worker
isoalkanes, cyclics EC No.: 920-750-0		② Long-term – inhalation, systemic effects
Hydrocarbons, C7-C9, n-alkanes,	608 mg/m ³	① DNEL Consumer
isoalkanes, cyclics EC No.: 920-750-0		② Acute - inhalation, systemic effects
Hydrocarbons, C7-C9, n-alkanes,	773 mg/kg bw/	① DNEL worker
isoalkanes, cyclics	day	② Long-term - dermal, systemic effects
EC No.: 920-750-0		
Hydrocarbons, C7-C9, n-alkanes,		① DNEL Consumer
isoalkanes, cyclics EC No.: 920-750-0	day	② Long-term - dermal, systemic effects
Hydrocarbons, C7-C9, n-alkanes,	699 mg/kg bw/	① DNEL Consumer
isoalkanes, cyclics EC No.: 920-750-0	day	② Long-term - oral, systemic effects
Hydrocarbons, C9-C10, containing n-	185 mg/m³	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2%		② Long-term – inhalation, systemic effects
aromatics EC No.: 927-241-2		
Hydrocarbons, C9-C10, containing n-	77 mg/kg bw/	① DNEL worker
alkanes, isoalkanes, cyclics, with <2%	day	② Long-term - dermal, systemic effects
aromatics EC No.: 927-241-2		
Hydrocarbons, C9-C10, containing n-	46 mg/kg bw/	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2%	day	② Long-term - dermal, systemic effects
aromatics EC No.: 927-241-2		,
Hydrocarbons, C9-C10, containing n-	300 mg/kg bw/	① DNEL worker
alkanes, isoalkanes, cyclics, with <2%	day	② Long-term - oral, systemic effects
aromatics EC No.: 927-241-2		
Hydrocarbons, C9-C10, containing n-	46 mg/kg bw/	① DNEL Consumer
alkanes, isoalkanes, cyclics, with <2%	day	② Long-term - oral, systemic effects
aromatics EC No.: 927-241-2		
butanone	600 mg/m ³	① DNEL worker
CAS No.: 78-93-3 EC No.: 201-159-0		② Long-term – inhalation, systemic effects
butanone	106 mg/m³	① DNEL Consumer
CAS No.: 78-93-3	J.	② Long-term – inhalation, systemic effects
EC No.: 201-159-0	1 161 55 57/15	,
butanone CAS No.: 78-93-3	1,161 mg/kg bw/day	① DNEL worker
EC No.: 201-159-0	,,	② Long-term - dermal, systemic effects
butanone		① DNEL Consumer
CAS No.: 78-93-3 EC No.: 201-159-0	day	② Long-term - dermal, systemic effects
butanone	31 mg/kg bw/	① DNEL worker
CAS No.: 78-93-3	day	② Long-term - oral, systemic effects
EC No.: 201-159-0	l	

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Substance name	DNEL value	① DNEL type	
		② Exposure route	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	700 mg/m ³	① DNEL worker ② Long-term – inhalation, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	206 mg/m ³	① DNEL Consumer ② Long-term – inhalation, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	1,400 mg/m ³	DNEL worker Acute - inhalation, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	412 mg/m ³	① DNEL Consumer ② Acute - inhalation, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	700 mg/m ³	① DNEL worker ② Long-term – inhalation, local effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	206 mg/m ³	① DNEL Consumer ② Long-term – inhalation, local effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	1,400 mg/m ³	① DNEL worker ② Acute - inhalation, local effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	412 mg/m ³	DNEL Consumer Acute - inhalation, local effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	2,016 mg/kg bw/day	DNEL worker Long-term - dermal, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	1,186 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects	
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	59.4 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	9 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	2.7 mg/m ³	① DNEL Consumer ② Long-term – inhalation, systemic effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	1.7 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	1 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.14 mg/cm ²	① DNEL worker ② Long-term - dermal, local effects	
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.14 mg/cm ²	DNEL Consumer Long-term - dermal, local effects	

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Substance name	DNEL value	① DNEL type ② Exposure route
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.6 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
Substance name	PNEC Value	① PNEC type
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.96 mg/L	① PNEC aquatic, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.76 mg/L	① PNEC aquatic, marine water
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	580 mg/L	① PNEC sewage treatment plant
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	3.6 mg/kg	① PNEC sediment, freshwater
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	0.63 mg/kg	① PNEC soil, freshwater
butanone CAS No.: 78-93-3 EC No.: 201-159-0	55.8 mg/L	① PNEC aquatic, freshwater
butanone CAS No.: 78-93-3 EC No.: 201-159-0	55.8 mg/L	① PNEC aquatic, marine water
butanone CAS No.: 78-93-3 EC No.: 201-159-0	709 mg/L	① PNEC sewage treatment plant
butanone CAS No.: 78-93-3 EC No.: 201-159-0	284.74 mg/kg	① PNEC sediment, freshwater
butanone CAS No.: 78-93-3 EC No.: 201-159-0	284.7 mg/kg	① PNEC sediment, marine water
butanone CAS No.: 78-93-3 EC No.: 201-159-0	1 g/kg	① PNEC secondary poisoning
butanone CAS No.: 78-93-3 EC No.: 201-159-0	55.8 mg/L	① PNEC aquatic, intermittent release
butanone CAS No.: 78-93-3 EC No.: 201-159-0	22.5 mg/kg	① PNEC soil, freshwater
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	44.7 μg/L	① PNEC aquatic, freshwater
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	4.47 μg/L	① PNEC aquatic, marine water
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	3.24 mg/L	① PNEC sewage treatment plant
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	3.6 mg/kg	① PNEC sediment, freshwater
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	0.36 mg/kg	① PNEC sediment, marine water

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Substance name	PNEC Value	① PNEC type
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	0.694 mg/kg	① PNEC soil
cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2	9 μg/L	① PNEC aquatic, intermittent release
citral CAS No.: 5392-40-5 EC No.: 226-394-6	6.78 μg/L	① PNEC aquatic, freshwater
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.678 μg/L	① PNEC aquatic, marine water
citral CAS No.: 5392-40-5 EC No.: 226-394-6	1.6 mg/L	① PNEC sewage treatment plant
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.125 mg/kg	① PNEC sediment, freshwater
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.0125 mg/kg	① PNEC sediment, marine water
citral CAS No.: 5392-40-5 EC No.: 226-394-6	0.0209 mg/kg	① PNEC soil
citral CAS No.: 5392-40-5 EC No.: 226-394-6	67.8 μg/L	① PNEC aquatic, intermittent release

* 8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. generation/formation of aerosols: Technical ventilation of workplace.

8.2.2. Personal protection equipment





Eye/face protection:

Eye glasses with side protection EN 166.

Skin protection:

Tested protective gloves must be worn. EN ISO 374.

In full conatct: Suitable material: Butyl caoutchouc (butyl rubber). Thickness of the glove material >0,7 mm. Breakthrough time: >480 min.

In splash contact: Suitable material:Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber). Thickness of the glove material >0,4 mm, Breakthrough time: > 120 min.

The following gloves may be used: Ultranitril 492, MAPA Professionnel & Nitril/Neopren Microflex 93-260 (EN374 (JKL), EN388 (2000); Kat.III; AQL 0,65).

Check leak tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Filtering device with filter or ventilator filtering device of type: AX.

Thermal hazards:

Risk of explosion if heated under confinement.

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/1500 häfer GmbH

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Other protection measures:

Wear suitable protective clothing.

8.2.3. Environmental exposure controls

No data available

8.3. Additional information

For the end user

Wear standard work gloves.

After skin contact, wash the affected area with soap and water, then apply a moisturizing skin cream to the skin.

Avoid eye contact, use a soaked cloth to clean to avoid aerosol formation.

After eye contact, rinse your eyes with water; if eye irritation persists, consult an ophthalmologist. Make sure there is sufficient fresh air during use.

After inhalation, possible headaches or ethanol hangover, drink plenty of water and provide enough fresh air.

If swallowed, contact a poison information center or doctor (emergency number) and show the safety data sheet and label.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid Colour: colourless

Odour: Lemon

Safety relevant basis data

Parameter	Value	① Method
		② Remark
рН	7	
Melting point	No data available	
Freezing point	No data available	
Initial boiling point and boiling range	78 - 137 °C	
Flash point	10 °C	
Evaporation rate	No data available	
Auto-ignition temperature	No data available	
Upper/lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Vapour density	No data available	
Density	No data available	
Bulk density	not applicable	
Water solubility	partially miscible	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour. Do not spray on an open flame or other ignition source.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions/Exothermic reaction with: Acid, Light metals (Formation of: Hydrogen).

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/15/07 häfer GmbH

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10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5. Incompatible materials

Oxidising agent.

10.6. Hazardous decomposition products

In case of warming: Flammable solvent vapor mixtures are possible.

Gases/vapours, toxic.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0

LD₅₀ oral: >5,000 mg/kg (Rat) MSDS Distributor

LD₅₀ dermal: 2,800 - 3,100 mg/kg (Rat) ECHA

LC₅₀ Acute inhalation toxicity (vapour): 23.3 mg/L 4 h (Rat) ECHA

Hydrocarbons, C9-C10, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics

LD₅₀ oral: >15,000 mg/kg (Rat) MSDS Distributor

LD₅₀ dermal: >5,000 mg/kg (Rabbit) MSDS Distributor

LC₅₀ Acute inhalation toxicity (dust/mist): >6.1 mg/L 4 h (Rat) MSDS Distributor

butanone CAS No.: 78-93-3 EC No.: 201-159-0

LD₅₀ oral: 2,740 mg/kg (Rat) Toxicology and Applied Pharmacology. Vol. 19, Pg. 699, 1971.

LD₅₀ dermal: 6,480 mg/kg (Rabbit) Shell Chemical Company. Vol. MSDS-5390-4,

n-hexane CAS No.: 110-54-3 EC No.: 203-777-6

LD₅₀ oral: 25,000 mg/kg (Rat) Industrial Health. Vol. 32, Pg. 145, 1994. (GESTIS)

LC₅₀ Acute inhalation toxicity (vapour): 169 mg/L 4 h (Rat) Annual Review of Pharmacology and Toxicology. Vol.

22, Pg. 145, 1982. (GESTIS)

cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2

LD₅₀ oral: 5,000 mg/kg (Rat)

LD₅₀ dermal: 2,000 mg/kg (Rabbit)

LC₅₀ Acute inhalation toxicity (gas): 5,540 ppmV 4 h (Rat)

LC₅₀ Acute inhalation toxicity (vapour): 32.88 mg/L 4 h (Rat)

Acute oral toxicity:

Harmful if swallowed.

Acute dermal toxicity:

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

Acute inhalation toxicity:

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

Skin corrosion/irritation:

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

Serious eve 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:

May cause drowsiness or dizziness.

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/15/07 häfer GmbH

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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.

Additional information:

No data available

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0

LC₅₀: 10 - 30 mg/L 3 d (fish) ECHA

EC₅₀: 4.6 - 10 mg/L 2 d (crustaceans) ECHA

EC₅₀: 10 - 30 mg/L 3 d (Algae/water plant) ECHA

NOEC: 0.17 mg/L 21 d (crustaceans) ECHA

LC₅₀: 10 - ≤100 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) MSDS Distributor

LC₅₀: 10 - ≤100 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) MSDS Distributor

LC50: >100 mg/L (Algae/water plant) MSDS Distributor

LC50: >1,000 mg/L (Mikroorganismen) MSDS Distributor

LC₅₀: >10 - <30 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout))

EC₅₀: >1,000 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) EL 50 SDB BR

EC₅₀: >22 - <46 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) EL 50 SDB BR

NOEC: <1 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata) NOELR SDB BR

butanone CAS No.: 78-93-3 EC No.: 201-159-0

LC₅₀: 3,220 – 3,220 mg/L 4 d (fish, Pimephales promelas) Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984 Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI :414

EC₅₀: 5,090 – 5,090 mg/L 2 d (crustaceans) Randall, T.L., and P.V. Knopp 1980. Detoxification of Specific Organic Substances by Wet Oxidation. J.Water Pollut.Control Fed. 52(8):2117-2130

EC50: 2,029 mg/L 4 d (Algae/water plant) ECHA

NOEC: 68 mg/L 2 d (crustaceans) ECHA

n-hexane CAS No.: 110-54-3 EC No.: 203-777-6

LC₅₀: 2.5 - 113 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) GESTIS

cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2

LC₅₀: 4.53 mg/L 4 d (fish)

EC₅₀: 4.36 mg/L 2 d (crustaceans)

NOEC: 0.952 mg/L 3 d (Algae/water plant)

Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0

Biodegradation: Yes, rapidly

Remark: Inherently biodegradable. bioaccumulation possible.

Hydrocarbons, C9-C10, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2

Biodegradation: Yes, rapidly

Remark: Bioakkumulation potentiell möglich, Schädlich für Fische.

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Biodegradation: Yes, rapidly

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cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2

Biodegradation: Yes, rapidly

12.3. Bioaccumulative potential

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Log Kow: 0.3

n-hexane CAS No.: 110-54-3 EC No.: 203-777-6

Log K_{OW}: 3.9

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Results of PBT and vPvB assessment: -

butanone CAS No.: 78-93-3 EC No.: 201-159-0

Results of PBT and vPvB assessment: -

n-hexane CAS No.: 110-54-3 EC No.: 203-777-6

Results of PBT and vPvB assessment: -

cyclohexane CAS No.: 110-82-7 EC No.: 203-806-2

Results of PBT and vPvB assessment: —

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

14 06 03 * other solvents and solvent mixtures

*: Evidence for disposal must be provided.

Directive 2008/98/EC (Waste Framework Directive)

HP 3 Flammable

Waste code packaging

15 01 06 mixed packaging

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Completely emptied packages can be recycled.

Other disposal recommendations:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.2. Additional information

Return to Distributor...

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/1500 häfer GmbH

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SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or	ID number		
UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper ship	ping name		
FLAMMABLE LIQUID, N.O.S. (Ethanol and Gasoline, mixture)	FLAMMABLE LIQUID, N.O.S. (Ethanol and Gasoline, mixture)	FLAMMABLE LIQUID, N.O.S. (Ethanol and Gasoline, mixture)	FLAMMABLE LIQUID, N.O.S. (Ethanol and Gasoline, mixture)
14.3. Transport haza	rd class(es)		,
3	3	3	3
14.4. Packing group			,
II	II	II	II
14.5. Environmental	hazards		
¥2	1	MARINE POLLUTANT	¥2>
14.6. Special precau	tions for user		
Special Provisions: 640D Limited quantity (LQ):	Special Provisions: 640D Limited quantity (LQ):	Special Provisions: 640D Limited quantity (LQ):	Special Provisions: 640D Limited quantity (LQ):
Hazard identification number (Kemler No.): 33	Classification code: F1 Remark:	EmS-No.: F-E, S-E	
Classification code:	-		
Tunnel restriction code: (D/E)			
Remark:			

14.7. Maritime transport in bulk according to IMO instruments

not determined.

Additional information:

-

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Restrictions on use:

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

Other regulations (EU):

Hazard categories:

- P5a Flammable Liquids, Category 1 or 2
- P5b Flammable liquids
- P5c Flammable liquids of Categories 2 or 3, not covered by P5a and P5b

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds:

Volatile organic compounds (VOC) content in percent by weight: 98.3 weight-%

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/1500 häfer GmbH

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15.1.2. National regulations

[GB] National regulations

Other regulations, restrictions and prohibition regulations

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

Regulation 850/2004/EC on persistent organic pollutants (POP)

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1. Indication of changes

1.1.	Product identifier
3.2.	Mixtures
8.2.	Exposure controls
10.6.	Hazardous decomposition products
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture

16.2. Abbreviations and acronyms

AC Article Category

ACGIH American Conference of Governmental Industrial Hygienists

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland

Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging

DIN German Institute for Standardization / German Industrial Standard

DNEL derived no-effect level

EC₅₀ Effective Concentration 50% ECHA European Chemicals Agency

EN European Standard ES Exposure scenario

EWC European Waste Catalogue

ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
IMO International Maritime Organization

KG body weight

LC₅₀ Lethal (fatal) Concentration 50%

LD₅₀ Lethal (fatal) Dose 50%

MAK Maximum concentration in the workplace air (CH)

NFPA National Fire Protection Association

NIOSH National Institute for Occupational Safety & Health

NOEC No Observed Effect Concentration

OECD Organisation for Economic Cooperation and Development

OEL Threshold Limit Value

OSHA Occupational Safety & Health Administration PBT persistent and bioaccumulative and toxic

PC Product category

PNEC Predicted No Effect Concentration

REACH Registration, Evaluation and Authorization of Chemicals RID Dangerous goods regulations for transport by rail

SCL Specific concentration limit

SU use category

TRGS Technische Regeln für Gefahrstoffe

UN United Nations

VOC Volatile organic compounds ZNS central nervous system

according to REACH Regulation UK SI 2019/758, as amended, and UK SI 2020/1500 häfer GmbH

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For abbreviations and acronyms, see ECHA: Guidance on information requirements and chemical safety assessment, Chapter R.20 (list of terms and abbreviations).

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

Hazard classes and hazard categories	Hazard statements	Classification procedure
flammable liquids (Flam. Liq. 2)	H225: Highly flammable liquid and vapour.	
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.	
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements		
H225	Highly flammable liquid and vapour.	
H226	Flammable liquid and vapour.	
H304	May be fatal if swallowed and enters airways.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
H361f	Suspected of damaging fertility.	
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.	

Supplemental hazard information	
EUH066	Repeated exposure may cause skin dryness or cracking.

16.6. Training advice

No data available

16.7. Additional information

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.

* Data changed compared with the previous version.