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

1.1. Product identifier

Trade name/designation:

FSG-Plastic Cleaner, Type N/AS

Article No.:

RE12000

UFI:

5872-T1FU-400S-PKF8

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 Ostermann France SAS

Boschstraße 14 FR

48703 Stadtlohn 2, rue de l'Atelier GERMANY 38160 Saint-Marcellin

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

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

E-mail: verkauf@fsg-schaefer.de

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

Telefax: + 33 (0) 4 76 36 57 61

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

<u> </u>			
Hazard classes and hazard categories	Hazard statements	Classification procedure	
flammable liquids (Flam. Liq. 2)	H225: Highly flammable liquid and vapour.		
	H412: Harmful to aquatic life with long lasting effects.		
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.		

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2.2. Label elements

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





GHS02 Flame

GHS07 **Exclamation mark**

Signal word: Danger

Hazard components for labelling:

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

Hazard statements for physical hazards	
H225 Highly flammable liquid and vapour.	

Hazard statements for health hazards	
H302	Harmful if swallowed.

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.	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ Personal protection.	

Precautionary statements Response		
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/First aider.		

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

Special rules for supplemental label elements for certain mixtures:

81,1 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).

3,3 % 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	48 - < 90 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 O Danger	4 - ≤ 8 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	2 - ≤ 4 weight-%
CAS No.: 78-93-3 butanone EC No.: 201-159-0 Eye Irrit. 2 (H319), Flam. Liq. 2 (H225), STOT SE 3 (H336) Index No.: 606-002-00-3 Danger EUH066		1 - < 2.51 weight-%
CAS No.: 1474044-65-9 EC No.: 939-607-9 REACH No.: 01-2119471849-20 Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate Acute Tox. 3 (H311), Acute Tox. 4 (H302), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Skin Corr. 1C (H314) Danger M-factor (acute): 10 M-factor (chronic): 1		0 - ≤ 0.3 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.

In case of skin contact:

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. 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 No data available

_ _ _ _

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.

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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 monoxide, Carbon dioxide (CO2), 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.

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.

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).

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

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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

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)

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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	DNEL Consumer Long-term – inhalation, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	1,900 mg/m ³	DNEL worker Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	950 mg/m³	① DNEL Consumer ② Acute - inhalation, local effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	343 mg/kg bw/ day	DNEL worker Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	206 mg/kg bw/ day	DNEL Consumer Long-term - dermal, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/ day	① DNEL worker ② Long-term - oral, systemic effects
ethanol CAS No.: 64-17-5 EC No.: 200-578-6	87 mg/kg bw/ day	DNEL worker Acute – oral, systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0	2,035 mg/m ³	① DNEL worker ② Long-term – inhalation, systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0	608 mg/m ³	DNEL Consumer Acute - inhalation, systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0	773 mg/kg bw/ day	DNEL worker Long-term - dermal, systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0	699 mg/kg bw/ day	DNEL Consumer Long-term - dermal, systemic effects
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics EC No.: 920-750-0	699 mg/kg bw/ day	DNEL Consumer Long-term - oral, systemic effects
Hydrocarbons, C9-C10, containing nalkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2		DNEL Consumer Long-term – inhalation, systemic effects
Hydrocarbons, C9-C10, containing n- alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	77 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
Hydrocarbons, C9-C10, containing n-alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	46 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
Hydrocarbons, C9-C10, containing n- alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	300 mg/kg bw/ day	① DNEL worker ② Long-term - oral, systemic effects
Hydrocarbons, C9-C10, containing n- alkanes, isoalkanes, cyclics, with <2% aromatics EC No.: 927-241-2	46 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	600 mg/m ³	DNEL worker Long-term – inhalation, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	106 mg/m ³	DNEL Consumer Long-term – inhalation, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	1,161 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	day	① DNEL Consumer ② Long-term - dermal, systemic effects
butanone CAS No.: 78-93-3 EC No.: 201-159-0	31 mg/kg bw/ day	① DNEL worker ② Long-term - oral, systemic effects
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	3.32 mg/m ³	① DNEL worker ② Long-term – inhalation, systemic effects
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	0.98 mg/m³	① DNEL Consumer ② Long-term – inhalation, systemic effects
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	4.7 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	2.83 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	2.83 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	136 mg/m³	① DNEL worker ② Long-term – inhalation, systemic effects
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	29 mg/m³	DNEL Consumer Long-term – inhalation, systemic effects

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Substance name	DNEL value	① DNEL type
		② Exposure route
butane-1,4-diol	958 mg/m ³	① DNEL worker
CAS No.: 110-63-4 EC No.: 203-786-5		② Acute - inhalation, systemic effects
butane-1,4-diol	340 mg/m ³	① DNEL Consumer
CAS No.: 110-63-4	S 10 111g/111	② Acute - inhalation, systemic effects
EC No.: 203-786-5		
butane-1,4-diol CAS No.: 110-63-4	19 mg/kg bw/ day	① DNEL worker
EC No.: 203-786-5	day	② Long-term - dermal, systemic effects
butane-1,4-diol	8 mg/kg bw/	① DNEL Consumer
CAS No.: 110-63-4 EC No.: 203-786-5	day	② Long-term - dermal, systemic effects
Substance name	PNEC Value	① PNEC type
ethanol CAS No.: 64-17-5	0.96 mg/L	① PNEC aquatic, freshwater
EC No.: 200-578-6		
ethanol	0.76 mg/L	① PNEC aquatic, marine water
CAS No.: 64-17-5 EC No.: 200-578-6		
ethanol	580 mg/L	① PNEC sewage treatment plant
CAS No.: 64-17-5	Joo mg/L	TNLC sewage treatment plant
EC No.: 200-578-6		
ethanol CAS No.: 64-17-5	3.6 mg/kg	① PNEC sediment, freshwater
EC No.: 200-578-6		
ethanol	0.63 mg/kg	① PNEC soil, freshwater
CAS No.: 64-17-5 EC No.: 200-578-6		
butanone	55.8 mg/L	DNIC a susting freehouster
CAS No.: 78-93-3	JJ.0 Hig/L	① PNEC aquatic, freshwater
EC No.: 201-159-0		
butanone CAS No.: 78-93-3	55.8 mg/L	① PNEC aquatic, marine water
EC No.: 201-159-0		
butanone	709 mg/L	① PNEC sewage treatment plant
CAS No.: 78-93-3 EC No.: 201-159-0		
butanone	284.74 mg/kg	① PNEC sediment, freshwater
CAS No.: 78-93-3	204.74 mg/kg	PNEC sediment, freshwater
EC No.: 201-159-0	ļ	
butanone CAS No.: 78-93-3	284.7 mg/kg	① PNEC sediment, marine water
EC No.: 201-159-0		
butanone	1 g/kg	① PNEC secondary poisoning
CAS No.: 78-93-3 EC No.: 201-159-0		-
butanone	55.8 mg/L	① PNEC aquatic, intermittent release
CAS No.: 78-93-3	33.0 1119/2	W I NEC aquatic, intermittent release
EC No.: 201-159-0		
butanone CAS No.: 78-93-3	22.5 mg/kg	① PNEC soil, freshwater
EC No.: 201-159-0		
Quaternary ammonium compounds,	0.00068 mg/L	① PNEC aquatic, freshwater
C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate		
CAS No.: 1474044-65-9		
EC No.: 939-607-9		

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Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	0.000068 mg/ L	① PNEC aquatic, marine water
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	0.9 mg/L	① PNEC sewage treatment plant
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	9.27 mg/kg	① PNEC sediment, freshwater
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	0.927 mg/kg	① PNEC sediment, marine water
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	7 mg/kg	① PNEC soil
Quaternary ammonium compounds, C12-14 (even- numbered) - alkylethyldimethyl, ethylsulphate CAS No.: 1474044-65-9 EC No.: 939-607-9	0.00036 mg/L	① PNEC aquatic, intermittent release
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	813 μg/L	① PNEC aquatic, freshwater
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	81.3 μg/L	① PNEC aquatic, marine water
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	1.554 g/m³	① PNEC sewage treatment plant
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	3.61 mg/kg	① PNEC sediment, freshwater
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	0.361 mg/kg	① PNEC sediment, marine water
butane-1,4-diol CAS No.: 110-63-4 EC No.: 203-786-5	8.13 mg/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.

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Skin protection:

Check leak tightness/impermeability prior to use.

In full conatct: Suitable material: Butyl caoutchouc (butyl rubber) >0,7 mm, Breakthrough time: >480

In splash contact: Suitable material: Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber) >0,4mm, 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).

Tested protective gloves must be worn EN ISO 374.

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.

Other protection measures:

Wear suitable protective clothing.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid Colour: colourless

Odour: Alcohol

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.

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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).

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

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,

Quaternary ammonium compounds, C12-14 (even- numbered) -alkylethyldimethyl, ethylsulphate

CAS No.: 1474044-65-9 EC No.: 939-607-9

LD₅₀ oral: 570 - 600 mg/kg (Rat)

LD₅₀ dermal: 429 - 1,900 mg/kg (Rabbit)

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 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.

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

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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

Quaternary ammonium compounds, C12-14 (even- numbered) -alkylethyldimethyl, ethylsulphate

CAS No.: 1474044-65-9 EC No.: 939-607-9

LC₅₀: 0.0138 mg/L 4 d (fish) ECHA

EC₅₀: 0.036 mg/L 2 d (crustaceans) ECHA

NOEC: 0.01 mg/L 4 d (fish) ECHA

NOEC: 0.0322 mg/L 28 d (fish) ECHA

NOEC: 0.0068 - 0.0991 mg/L 21 d (crustaceans)

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.

Biodegradation: Yes, rapidly

Remark: Bioakkumulation potentiell möglich, Schädlich für Fische.

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

Biodegradation: Yes, rapidly

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

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12.3. Bioaccumulative potential

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

Log Kow: 0.3

Quaternary ammonium compounds, C12-14 (even- numbered) -alkylethyldimethyl, ethylsulphate

CAS No.: 1474044-65-9 EC No.: 939-607-9

Log Kow: 3.26

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: -

Quaternary ammonium compounds, C12-14 (even- numbered) -alkylethyldimethyl, ethylsulphate

CAS No.: 1474044-65-9 EC No.: 939-607-9

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 2020/15/07 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	•	<u>, </u>
UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper ship	pping name	-	
FLAMMABLE LIQUID, N.O.S. (Gasoline Mixtures)	FLAMMABLE LIQUID, N.O.S. (Gasoline Mixtures)	FLAMMABLE LIQUID, N.O.S. (Gasoline Mixtures)	FLAMMABLE LIQUID, N.O.S (Gasoline Mixtures)
14.3. Transport haza	ard class(es)	•	,
3	3	3	3
14.4. Packing group			
II	II	II	II
14.5. Environmenta	hazards		
<u>*</u>	¥2>	MARINE POLLUTANT	¥2
14.6. Special precaι	itions for user	•	<u>'</u>
Special Provisions: 640 D	Special Provisions: 640 D	Special Provisions: 640D	Special Provisions: 640D
Limited quantity (LQ):	Limited quantity (LQ):	Limited quantity (LQ): $1 L$	Limited quantity (LQ):
Hazard identification number (Kemler No.):	Classification code: F1	EmS-No.: F-E, S-E	
33	Remark:		
Classification code: F1	-		
Tunnel restriction code: (D/E)			
Remark:			
=		1	

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: 98.9 weight-%

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

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

SU use category

TRGS Technische Regeln für Gefahrstoffe

UN United Nations

VOC Volatile organic compounds

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

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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.	
· · · · · · · · · · · · · · · · · · ·	H412: Harmful to aquatic life with long lasting effects.	
Acute toxicity (oral) (Acute Tox. 4)	H302: Harmful if swallowed.	

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

24.0.0	
Hazard statements	
Highly flammable liquid and vapour.	
Flammable liquid and vapour.	
Harmful if swallowed.	
May be fatal if swallowed and enters airways.	
Toxic in contact with skin.	
Causes severe skin burns and eye damage.	
Causes serious eye damage.	
Causes serious eye irritation.	
May cause drowsiness or dizziness.	
Very toxic to aquatic life.	
Very toxic to aquatic life with long lasting effects.	
Toxic to aquatic life with long lasting effects.	
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.