

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

1.1. Product identifier

Trade name : Smartzid
Article number : REF 203450, REF 203453, REF 203455, REF 203457, REF 203449, REF 203452, REF 203454, REF 203456, 111359, 111360

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Medical device
Germicide
Cleaning agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Alfred Becht GmbH
Carl-Zeiss-Str. 16
P.O. Box 1145
77656 Offenburg
T +49 781 60586-0 - F +49 781 60586-40

Email competent person

sds@kft.de

1.4. Emergency telephone number

Emergency number : Poisoning Information Centre Freiburg +49 761 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225
Serious eye damage/eye irritation, Category 1 H318
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

Signal word (CLP) :

Danger

Contains :

n-propanol

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.
H318 - Causes serious eye damage.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames. No smoking.
P280 - Wear eye protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.

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2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
n-propanol (71-23-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
butanone (78-93-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
didecyldimethylammonium chloride (7173-51-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Cleaning agent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol substance with national workplace exposure limit(s) (DE)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	$\geq 25 - < 50$	Flam. Liq. 2, H225 Eye Irrit. 2, H319
n-propanol	CAS-No.: 71-23-8 EC-No.: 200-746-9 EC Index-No.: 603-003-00-0	$\geq 5 - < 10$	Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336
butanone substance with national workplace exposure limit(s) (DE); substance with a Community workplace exposure limit	CAS-No.: 78-93-3 EC-No.: 201-159-0 EC Index-No.: 606-002-00-3	$\geq 0.25 - < 1$	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
didecyldimethylammonium chloride	CAS-No.: 7173-51-5 EC-No.: 230-525-2 EC Index-No.: 612-131-00-6	< 0.1	Acute Tox. 3 (Oral), H301 (ATE=264 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	($50 \leq C < 100$) Eye Irrit. 2, H319

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: When in doubt or if symptoms are observed, get medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after eye contact	: Serious damage to eyes.
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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	: Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
Explosion hazard	: Explosive vapour/air mixtures may be formed.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide (CO ₂). Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions	: Protect container with water spray.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove all sources of ignition. Avoid contact with skin and eyes. Ensure adequate air ventilation. Do not breathe gas/vapour/aerosol.
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6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Avoid sub-soil penetration.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Cover spill with non combustible material, e.g.: sand/earth. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
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Other information : Dispose of materials or solid residues at an authorized site. Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapour-air mixture.
Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use only non-sparking tools. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures : Immediately remove contaminated or damp clothing. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Protect against frost. Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from heat and direct sunlight.
Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs. Store away from Acids, oxidizing materials.

7.3. Specific end use(s)

Follow the directions!.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

butanone (78-93-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Butanone
IOEL TWA	600 mg/m ³
IOEL TWA [ppm]	200 ppm
IOEL STEL	900 mg/m ³
IOEL STEL [ppm]	300 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Butanon
AGW (OEL TWA) [1]	600 mg/m ³
AGW (OEL TWA) [2]	200 ppm
Peak exposure limitation factor	1(I)

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butanone (78-93-3)	
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); H - hautresorptiv; Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
Germany - Biological limit values (TRGS 903)	
Local name	2-Butanon (Methylethylketon)
Biological limit value	2 mg/l Parameter: 2-Butanon - Untersuchungsmaterial: U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 05/2015 DFG
Remark	U, b, 05/2015, DFG
Regulatory reference	TRGS 903
Ethanol (64-17-5)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Ethanol
AGW (OEL TWA) [1]	380 mg/m ³
AGW (OEL TWA) [2]	200 ppm
Peak exposure limitation factor	4(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

n-propanol (71-23-8)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	1723 mg/m ³
Long-term - systemic effects, dermal	136 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	268 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	1036 mg/m ³
Long-term - systemic effects, oral	61 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	80 mg/m ³
Long-term - systemic effects, dermal	81 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	6.83 mg/l
PNEC aqua (marine water)	0.683 mg/l

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n-propanol (71-23-8)	
PNEC (Sediment)	
PNEC sediment (freshwater)	27.5 mg/kg dwt
PNEC sediment (marine water)	2.75 mg/kg dwt
PNEC (Soil)	
PNEC soil	1.49 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	96 mg/l
butanone (78-93-3)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	900 mg/m ³
Long-term - systemic effects, dermal	1161 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	600 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	450 mg/m ³
Long-term - systemic effects, oral	31 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	106 mg/m ³
Long-term - systemic effects, dermal	412 mg/kg bodyweight/day
Ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	8238 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	380 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	114 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.38 kg/kg food
PNEC (STP)	
PNEC sewage treatment plant	580 mg/l

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didecyldimethylammonium chloride (7173-51-5)	
PNEC (Water)	
PNEC aqua (freshwater)	0.0011 mg/l
PNEC aqua (marine water)	0.00011 mg/l
PNEC aqua (intermittent, freshwater)	0.00021 mg/l
PNEC aqua (intermittent, marine water)	0.000021 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	61.86 mg/kg dwt
PNEC sediment (marine water)	6.186 mg/kg dwt
PNEC (Soil)	
PNEC soil	1.4 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.14 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear closed safety glasses. EN 166. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. EN 13034. EN ISO 13688

Hand protection:

In case of repeated or prolonged contact wear gloves. Chemically resistant protective gloves. Butyl rubber. Neoprene. Polyethylene. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Short term exposure. Breathing apparatus with filter. A-P2. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust. For details on conditions of use and maximum use concentrations, see DGUV Regulation 112-190 - Use of respiratory protective equipment.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product. Apply emollient cream.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Odour	: alcohol odour.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive properties	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: < 10
Viscosity, kinematic	: Not available
Solubility	: Water: Miscible (Solution)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 0.91 g/cm ³ (Solution)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Explosive vapour/air mixtures may be formed.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

didecyldimethylammonium chloride (7173-51-5)	
LD50 oral rat	264 mg/kg bodyweight (female; (OECD 401 method))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: < 10
Serious eye damage/irritation	: Causes serious eye damage. pH: < 10
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)

n-propanol (71-23-8)	
STOT-single exposure	May cause drowsiness or dizziness.

butanone (78-93-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

didecyldimethylammonium chloride (7173-51-5)	
LC50 - Fish [1]	0.49 mg/l (96 h; Brachydanio rerio (zebra-fish); (OECD 203 method))
EC50 - Crustacea [1]	≈ 0.057 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 algae	0.062 mg/l (72 h; Pseudokirchnerella subcapitata (OECD 201 method))
NOEC chronic crustacea	0.021 mg/l (21 d; Daphnia magna; (OECD 211 method))
NOEC chronic algae	0.013 mg/l (OECD 201 method)

12.2. Persistence and degradability

Smartzid	
Persistence and degradability	The product has not been tested.
n-propanol (71-23-8)	
Persistence and degradability	Readily biodegradable.

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n-propanol (71-23-8)	
Biodegradation	75 % (20 d)

butanone (78-93-3)	
Persistence and degradability	Readily biodegradable.
Biodegradation	98 % (28 d; (OECD 301D method))

Ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	84 % (20 d)

didecyldimethylammonium chloride (7173-51-5)	
Persistence and degradability	Readily biodegradable.
Biodegradation	69 % (28d)

12.3. Bioaccumulative potential

Smartzid	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Bioaccumulative potential	The product has not been tested.

n-propanol (71-23-8)	
Partition coefficient n-octanol/water (Log Pow)	0.2 (25 °C; pH 7; (OECD 117 method))

butanone (78-93-3)	
Partition coefficient n-octanol/water (Log Pow)	0.3 (40 °C; pH 7; (OECD 117 method))
Bioaccumulative potential	Bioaccumulation unlikely.

Ethanol (64-17-5)	
Partition coefficient n-octanol/water (Log Kow)	-0.35 (20 °C)
Bioaccumulative potential	Bioaccumulation unlikely.

didecyldimethylammonium chloride (7173-51-5)	
Partition coefficient n-octanol/water (Log Pow)	2.59 (20 °C; (OECD 105 method))

12.4. Mobility in soil

Smartzid	
Ecology - soil	The product has not been tested.

n-propanol (71-23-8)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.633 (Quantitative structure-activity relationship (QSAR))

Ethanol (64-17-5)	
Surface tension	22.31 mN/m (20 °C)

didecyldimethylammonium chloride (7173-51-5)	
Surface tension	25.82 mN/m (OECD 115 method)

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12.5. Results of PBT and vPvB assessment

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PBT: not relevant – no registration required

vPvB: not relevant – no registration required

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: European waste catalogue. Disposal must be done according to official regulations.
Sewage disposal recommendations	: Do not allow into drains or water courses.
Product/Packaging disposal recommendations	: Do not dispose of with domestic waste.
Additional information	: Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: 07 01 01* - aqueous washing liquids and mother liquors
HP Code	: HP3 - "Flammable:" – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C; – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air; – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction; – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa; – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities; – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste. HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

SECTION 14: Transport information






In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1993	UN 1993	UN 1993	UN 1993	UN 1993
14.2. UN proper shipping name				
FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-1-ol)	FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol)	Flammable liquid, n.o.s. (ethanol ; propan-2-ol)	FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol)	FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol)
Transport document description				
UN 1993 FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-1-ol), 3, II, (D/E)	UN 1993 FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol), 3, II	UN 1993 Flammable liquid, n.o.s. (ethanol ; propan-2-ol), 3, II	UN 1993 FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol), 3, II	UN 1993 FLAMMABLE LIQUID, N.O.S. (ethanol ; propan-2-ol), 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3

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ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 274, 601, 640C
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 33
Orange plates :



Tunnel restriction code (ADR) : D/E

Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E

Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 353
PCA max net quantity (IATA) : 5L
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3

Inland waterway transport

Classification code (ADN) : F1
Special provisions (ADN) : 274, 601, 640C
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Additional requirements/Remarks (ADN) :

Rail transport

Classification code (RID) : F1
Special provisions (RID) : 274, 601, 640C
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2

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Transport category (RID) : 2
Hazard identification number (RID) : 33

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations : Take note of Directive 94/33/EC on the protection of young people at work.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	Smartzid ; n-propanol ; butanone ; Ethanol
3(b)	Smartzid ; n-propanol ; butanone ; Ethanol
40.	Smartzid ; n-propanol ; butanone ; Ethanol

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals):
Didecyldimethylammonium chloride (7173-51-5)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category	Threshold	Annex
Methylethylketone	Butanone	78-93-3	2914 12 00	Category 3		Annex I

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15.1.2. National regulations

Germany

Employment restrictions	: Employment prohibitions or restrictions on the protection of young people at work according to § 22 JArbSchG in the case of formation of hazardous substances have to be observed.
National Rules and Recommendations	: TRGS 400: Risk Assessment for Activities involving Hazardous Substances. TRGS 500: Protective measures. TRGS 510: Storage of hazardous substances in non-stationary containers. TRGS 520: Construction and operation of collection points and temporary storage for small amounts of hazardous waste. TRGS 900: Occupational Exposure Limits. TRGS 903: Biological limit values.
Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
Storage class (LGK, TRGS 510)	: LGK 3 - Flammable liquids.
Hazardous Incident Ordinance (12. BImSchV)	: Listed in the 12. BImSchV (Annex I) under: 1.2.5.3 - Quantity threshold for operational area under § 1 para. 1 - Sentence 1 :5000000 kg - Sentence 2 :50000000 kg

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

General revision.

Abbreviations and acronyms:	
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
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
ATE	Acute Toxicity Estimate
DNEL	Derived-No Effect Level
DMEL	Derived Minimal Effect level
IARC	International Agency for Research on Cancer
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level

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Abbreviations and acronyms:

NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PNEC	Predicted No-Effect Concentration
STP	Sewage treatment plant
TLM	Median Tolerance Limit

Data sources : Information provided by the manufacturer. MSDSs of the suppliers. European Chemicals Agency, <http://echa.europa.eu/>.

Department issuing data specification sheet: : KFT Chemieservice GmbH
Im Leuschnerpark 3
D-64347 Griesheim

Phone: +49 6155-8981-400
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SDS Service: +49 6155 8981-522

Contact person : Dr. Maximilian Gatterdam

Full text of H- and EUH-statements:

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 2	H225	Calculation method
Eye Dam. 1	H318	Calculation method

KFT SDS EU 01

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.