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

1.1 Product identifier

Trade name : rotasept®

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

Use of the Sub-stance/Mixture : Disinfectants

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2

22851 Norderstedt
Germany
Telephone: +49 (0)40/ 52100-0
Telefax: +49 (0)40/ 52100318
mail@schuelke.com
www.schuelke.com

E-mail address of person responsible for the SDS/Contact person : Application Department HI
+49 (0)40/ 521 00 8800
ADHI@schuelke.com
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

Emergency telephone number : UK Poisons Emergency number: 0870 600 6266

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1	H290: May be corrosive to metals.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements	:	P280	Wear protective gloves/ eye protection.
		P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
		P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
		P501	Dispose of contents/ container to an approved waste disposal plant.
Special labelling of certain mixtures	:	Labelling according to Regulation (EC) No. 648/2004: (< 5 % non-ionic surfactants,)	
Further information	:	The product is classified in accordance with Annex I (2.6.4.5) to Regulation (EC) 1272/2008.	

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
No special risks known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Hazardous components

Chemical name	Index-Number CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
2- Propanol	603-117-00-0 67-63-0 200-661-7 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	10
Potassium hydroxide	019-002-00-8 1310-58-3 215-181-3 01-2119487136-33-XXXX	Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1A; H314	1 - 2

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Take off all contaminated clothing immediately.
In case of skin contact : Wash off immediately with plenty of water.

In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
If swallowed	:	Do NOT induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	Treat symptomatically.,

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Dry powder, Alcohol-resistant foam, Water spray jet, Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	none
Specific risk from the substance or the product itself, its combustion products or evolved gases	:	No special risks to be expected.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Increased risk of slipping in the presence of leaked / spilled product.

6.2 Environmental precautions

Environmental precautions	:	Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

6.4 Reference to other sections

see Section 8 + 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : not required under normal use
Advice on protection against fire and explosion : No special protective measures against fire required.
Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.
Further information on storage conditions : Keep away from heat. Keep away from direct sunlight. Keep container tightly closed. Recommended storage temperature: 5 - 25°C
Advice on common storage : Do not store near acids.

7.3 Specific end use(s)

Specific use(s) : none

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2- Propanol	67-63-0	Permissible exposure limit	200 ppm 500 mg/m3	TRGS 900
		Ceiling Limit Value	400 ppm 1.000 mg/m3	TRGS 900
		Permissible exposure limit	400 ppm 980 mg/m3	OSHA
Potassium hydroxide	1310-58-3	Ceiling Limit Value	2 mg/m3	

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
2- Propanol	Workers	Skin contact	Long-term exposure, Systemic effects	888 mg/kg
	Workers	Inhalation	Long-term exposure, Systemic effects	500 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
2- Propanol	Fresh water	140,9 mg/l
	Marine water	140,9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Soil	28 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection	:	Safety glasses with side-shields conforming to EN166
Hand protection		
Directive	:	The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Remarks	:	Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0,11 mm) made by KCL or gloves from other manufacturers offering the same protection. Prolonged contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.
Protective measures	:	Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	alcohol-like
Odour Threshold	:	not determined
pH	:	13,7, 20 °C
Melting point/freezing point	:	< -5 °C
Decomposition temperature	:	Not applicable
Boiling point/boiling range	:	ca. 80 °C
Flash point	:	36 °C, DIN 51755 Part 1 Other information: Does not sustain combustion.
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	ca. 34 hPa, 20 °C
vapour density	:	No data available
Density	:	ca. 1,00 g/cm3, 20 °C
Solubility(ies)		
Water solubility	:	in all proportions , 20 °C
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Flow time	:	< 15 s at 20 °C, DIN 53211
Explosive properties	:	Not applicable
Oxidizing properties	:	Not applicable

9.2 Other information

Corrosive in contact with metals	:	> 6,25 mm/a, Corrosive to metals, Aluminium

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

reaction with acids

10.4 Conditions to avoid

Protect from frost, heat and sunlight.

10.5 Incompatible materials

Possible incompatibility with alkali sensitive materials.,

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 15000 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: > 50 mg/l
Acute dermal toxicity	:	Acute toxicity estimate: > 15000 mg/kg

Skin corrosion/irritation

Product:

Causes severe skin burns and eye damage., Calculation method

Serious eye damage/eye irritation

Product:

Causes serious eye damage., Calculation method

Respiratory or skin sensitisation

Components:

2- Propanol:
Did not cause sensitisation on laboratory animals.Buehler Test, Guinea pig
Potassium hydroxide:
Did not cause sensitisation on laboratory animals.Guinea pig

Germ cell mutagenicity

Components:

2- Propanol:

Germ cell mutagenicity- Assessment	:	Animal testing did not show any mutagenic effects.

Potassium hydroxide:

Genotoxicity in vitro	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Germ cell mutagenicity- As-	:	Animal testing did not show any mutagenic effects.

sessment

Carcinogenicity

Components:

2- Propanol:
Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Potassium hydroxide:
Carcinogenicity - Assessment : No data available

Reproductive toxicity

Components:

2- Propanol:
Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

Potassium hydroxide:
Reproductive toxicity - Assessment : No data available

STOT - single exposure

Components:

2- Propanol:
May cause drowsiness or dizziness.

STOT - repeated exposure

Components:

2- Propanol:
Based on available data, the classification criteria are not met.

Aspiration toxicity

No data available

Further information

Product:

There is no data available for this product.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to bacteria : EC50 : 10.700 mg/l , OECD 209

Components:

2- Propanol:
Toxicity to fish : LC50 (Leuciscus idus): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l, 48 h, static test, Raw material, literature value

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l, 72 h, static test, Raw material, literature value

Potassium hydroxide:

Toxicity to fish	:	LC50 (Gambusia affinis (Mosquito fish)): 80 mg/l, 96 h
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae	:	No data available

12.2 Persistence and degradability

Product:

Biodegradability	:	Readily biodegradable, OECD 301D / EEC 84/449 C6
Chemical Oxygen Demand (COD)	:	3.200 mg/l ,1% solution

Components:

2- Propanol:

Biodegradability	:	Readily biodegradable

Potassium hydroxide:

Biodegradability	:	The methods for determining biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Components:

2- Propanol:

Bioaccumulation	:	No bioaccumulation is to be expected (log Pow <= 4).
Partition coefficient: n-octanol/water	:	log Pow: 0,05 (20 °C), OECD Test Guideline 107

Potassium hydroxide:

Bioaccumulation	:	Does not bioaccumulate.

12.4 Mobility in soil

Components:

2- Propanol:

Mobility	:	Mobile in soils

Potassium hydroxide:

Mobility	:	Mobile in soils

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

12.6 Other adverse effects

Product:

Additional ecological information	:	none

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of the product according to the defined EWC (European Waste Code) No.
Contaminated packaging	:	Take empty packaging to the recycling plant.

Waste key for the unused product	:	European waste catalog (EWC) 070601
Waste key for the unused product(Group)	:	Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 1814
IMDG	:	UN 1814
IATA	:	UN 1814

14.2 UN proper shipping name

ADR	:	POTASSIUM HYDROXIDE, SOLUTION
IMDG	:	POTASSIUM HYDROXIDE SOLUTION
IATA	:	Potassium hydroxide, solution

14.3 Transport hazard class(es)

ADR	:	8
IMDG	:	8
IATA	:	8

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	C5
Hazard Identification Number	:	80
Labels	:	8
Tunnel restriction code	:	E

IMDG

Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B

IATA

Packing instruction (cargo aircraft)	:	856
Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

ADR

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

For personal protection see section 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Legislation on the control of major-accident hazards involving dangerous substances	:	Directive 96/82/EC does not apply
Volatile organic compounds	:	Volatile organic compounds (VOC) content: 10 %, Directive 2010/75/EC on the limitation of emissions of volatile organic compounds
Other regulations	:	The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer. Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2 Chemical safety assessment

Exempt

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H290	:	May be corrosive to metals.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H319	:	Causes serious eye irritation.
H336	:	May cause drowsiness or dizziness.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Met. Corr.	:	Corrosive to metals
Skin Corr.	:	Skin corrosion
STOT SE	:	Specific target organ toxicity - single exposure

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -

Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Changes compared with the previous edition!!!

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.