

Safety Data Sheet

according to Regulation (EC) No 1907/2006

rheomed Surface Disinfection

Revision date: 23.06.2020

Product code: 20550

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P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use foam, powder or carbon dioxide to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to

Special labelling of certain mixtures

EUH208 Contains Polyhexamethylenediamine. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
64-17-5	ethanol; ethyl alcohol			25 - < 30 %
	200-578-6	603-002-00-5		
	Flam. Liq. 2; H225			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			10 - < 15 %
	200-661-7		01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
78-93-3	butanone; ethyl methyl ketone			< 1 %
	201-159-0	606-002-00-3		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
27083-27-8	Polyhexamethylenediamine			< 1 %
	Carc. 2, Acute Tox. 4, Eye Dam. 1, Skin Sens. 1B, STOT RE 1, Aquatic Chronic 1; H351 H332 H318 H317 H372 H410			

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

Further Information

Note: The danger characteristics refer to the properties of the neat substances.

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).

After inhalation

If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. Provide fresh

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air.

In case of persistent respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Immediately rinse of skin with plenty of water, in case of skin irritation consult physician.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Seek medical attention if problems persist.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air. In case of fire may be liberated: Carbon monoxide, Carbon dioxide (CO₂).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes.

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Product is flammable. Do not spray on hot surfaces.

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

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Consider conventional precautions for chemical handling. Do not breathe in fumes and aerosol. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk in case of fire. Pay attention to water protection (gathering, embank), do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Collect mechanically or with binding agent.

Rinse remaining substances with sufficient amount of water.

6.4. Reference to other sections

Safe handling: see section 7

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Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- Avoid contact with skin and eyes.
- Avoid the formation of aerosol.
- Do not breathe gas/fumes/vapour/spray.
- When using do not eat, drink or smoke.

Advice on protection against fire and explosion

- Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges.
- Vapours can form explosive mixtures with air. Precautions against fire and explosion: Keep away from sources of ignition. - No smoking. Keep away from hot surfaces.

Further information on handling

The product is: Flammable.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well ventilated place away from heat an ignition sources. Storage in original container. After removing the product close the container tight.

Hints on joint storage

Do not store together with: . Pyrophoric or self-heating substances. Do not store together with:
 self-igniting material
 igniting (oxidating) materials
 Material, combustible.
 material, flammable.
 alkali metals

7.3. Specific end use(s)

No special handling instructions are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol		
Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	500 mg/m ³
Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	89 mg/m ³

PNEC values

CAS No	Substance	
Environmental compartment	Value	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
Freshwater	140,9 mg/l	
Freshwater (intermittent releases)	140,9 mg/l	
Marine water	140,9 mg/l	
Freshwater sediment	552 mg/kg	
Marine sediment	552 mg/kg	
Secondary poisoning	160 mg/kg	
Micro-organisms in sewage treatment plants (STP)	2251 mg/l	
Soil	28 mg/kg	

8.2. Exposure controls



Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Do not eat, drink or smoke at the workplace.

Eye/face protection

Suitable eye protection: goggles, safety glasses

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Wear suitable gloves.

penetration time (maximum wearing period): 8 h

Suitable material:

NR (Natural rubber (Caoutchouc), Natural latex). 0,5 mm

CR (polychloroprenes, Chloroprene rubber). 0,5 mm

NBR (Nitrile rubber). 0,35 mm

FKM (fluororubber). 0,4 mm

PVC (Polyvinyl chloride). 0,5 mm

Before using check leak tightness / impermeability.

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Skin protection

Working clothes.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respiratory protection necessary at:
aerosol or mist generation.
insufficient ventilation.

Environmental exposure controls

No special measures are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	alcoholic
pH-Value (at 20 °C):	6

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	78 °C
Flash point:	25 °C
Sustaining combustion:	Not sustaining combustion

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive. product not potentially explosive but may form flammable/explosive vapour-air mixtures

Lower explosion limits:	2 vol. %
Upper explosion limits:	15 vol. %
Ignition temperature:	400 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidizing.

Vapour pressure: (at 20 °C)	58 hPa
Vapour pressure: (at 50 °C)	293 hPa
Density (at 20 °C):	0,94 g/cm ³
Bulk density:	not applicable
Water solubility:	complete miscible

Solubility in other solvents

not determined

Partition coefficient:	not determined
Vapour density:	not determined
Evaporation rate:	not determined

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9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

In case of warming: Risk of selfignition.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air. The product is stable, if used in compliance with instructions

Protect from heat and direct sunlight.

10.5. Incompatible materials

Alkali metals. Alkaline earth metals. Oxidizing agents. Sulphuric acid and sulphurous acid. Nitric acid.

10.6. Hazardous decomposition products

Prolonged exposure to direct and intensive sunlight may form explosive peroxides in the product.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol; ethyl alcohol				
	oral	LD50 mg/kg 6200	Rat	IUCLID	
	inhalation (4 h) vapour	LC50 95,6 mg/l	Rat	RTECS	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 mg/kg >2000	Rat		
	dermal	LD50 mg/kg >2000	Rabbit		
	inhalation (4 h) vapour	LC50 30 mg/l			
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg 3.300	Rat		
	dermal	LD50 mg/kg 6.400 - 8.000	Rabbit		
27083-27-8	Polyhexamethylenediamine				
	oral	LD50 mg/kg >2000	Rat		
	dermal	LD50 mg/kg >2000	Rat		
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			

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Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Contains Polyhexamethylenediamine. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Aspiration hazard

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

Specific effects in experiment on an animal

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

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Practical experience

Observations relevant to classification

not known

SECTION 12: Ecological information

12.1. Toxicity

In case of intended use no environmental degradation expected.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol; ethyl alcohol					
	Acute crustacea toxicity	EC50 9268 - 14221 mg/l	48 h	Daphnia magna	IUCLID	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 >100 mg/l	96 h	Leuciscus idus		
	Acute algae toxicity	ErC50 >1000 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50 13299 mg/l	48 h	Daphnia magna		
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 3.220 mg/l	96 h	Pimephales promelas		
	Acute crustacea toxicity	EC50 5.091 mg/l	48 h	Daphnia magna		
27083-27-8	Polyhexamethylenediamine					
	Acute fish toxicity	LC50 1,6 mg/l	96 h	rainbow trout	OECD 203	
	Acute algae toxicity	ErC50 0,0191 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201	
	Acute crustacea toxicity	EC50 0,78 mg/l	48 h	Daphnia magna	OECD 202	

12.2. Persistence and degradability

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Polyhexamethylenediamine: Not readily biodegradable.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	Biological degradability	53 %	5	
	Readily biodegradable.			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,31
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
27083-27-8	Polyhexamethylenediamine	<3

12.4. Mobility in soil

not known

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

not known

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Hand over to officially registered waste disposal company.

List of Wastes Code - residues/unused products

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1987
14.2. UN proper shipping name:	ALCOHOLS, N.O.S.
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3



Classification code:	F1
Special Provisions:	274 601

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Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 30
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Classification code: F1
 Special Provisions: 274 601
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: 223, 274
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1987
14.2. UN proper shipping name: ALCOHOLS, N.O.S.
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3



Special Provisions: A3 A180
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

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14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Combustible liquid. not required

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

Not classified for this transport way.

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	38,25 % (359,55 g/l)
2004/42/EC (VOC):	38,25 % (359,55 g/l)
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
propan-2-ol; isopropyl alcohol; isopropanol

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
P: Marine Pollutant
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations

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DNEL: Derived No Effect Level
 DMEL: Derived Minimal Effect Level
 PNEC: Predicted No Effect Concentration
 ATE: Acute toxicity estimate
 LL50: Lethal loading, 50%
 EL50: Effect loading, 50%
 EC50: Effective Concentration 50%
 ErC50: Effective Concentration 50%, growth rate
 NOEC: No Observed Effect Concentration
 BCF: Bio-concentration factor
 PBT: persistent, bioaccumulative, toxic
 vPvB: very persistent, very bioaccumulative
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 RID: Regulations concerning the international carriage of dangerous goods by rail
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation
 intérieures)
 EmS: Emergency Schedules
 MFAG: Medical First Aid Guide
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships
 IBC: Intermediate Bulk Container
 VOC: Volatile Organic Compounds
 SVHC: Substance of Very High Concern
 @1602.B016012

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

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Eye Irrit. 2; H319	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Polyhexamethylenediamine. May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. Notice the directions for use on the label. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

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.

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