

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : THERMOSEPT ED

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

Use of the Sub- : Disinfectants
stance/Mixture
Recommended restrictions : Restricted to professional users.
on use

1.3 Details of the supplier of the safety data sheet

Producer/Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2
22851 Norderstedt
Germany
Telephone: +4940521000
Telefax: +494052100318
mail@schuelke.com
www.schuelke.com

Contact person : Application Department HI
+49 (0)40/ 521 00 544 (Schülke UK +44 114 254 3500)
pab@schuelke.com

1.4 Emergency telephone number

Emergency telephone num- : UK Poisons Emergency number: 0870 600 6266
ber
Emergency telephone num- : +49 (0)40 / 52 100 -0
ber

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)

Harmful	R20/22: Harmful by inhalation and if swallowed.
Corrosive	R34: Causes burns.
Harmful	R42/43: May cause sensitization by inhalation and skin contact.

2.2 Label elements

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Corrosive

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

R-phrases(s)	: R20/22 R34 R42/43	Harmful by inhalation and if swallowed. Causes burns. May cause sensitization by inhalation and skin contact.
S-phrases(s)	: S23 S26 S36/37/39 S45 S51	Do not breathe vapour. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Use only in well-ventilated areas.

In the EU, this product falls under the Directive medical devices 93/42/EEC. The product is classified and labelled in accordance with EC directives or respective national laws.

Hazardous components which must be listed on the label:

- 111-30-8 Glutaral

2.3 Other hazards

No special risks known.

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 (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Glutaral	605-022-00-X 111-30-8 203-856-5 01- 2119455549- XXXX	T; R23/25 C; R34 Xn; R42/43 N; R50	Acute Tox. 3; H301 Acute Tox. 3; H331 Skin Corr. 1B; H314 Resp. Sens. 1; H334 Skin Sens. 1; H317 Aquatic Acute 1; H400 Met. Corr. 1; H290	20 %
Ethanol	603-002-00-5 64-17-5 200-578-6 01- 2119457610-	F; R11	Flam. Liq. 2; H225	5 - 15 %

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

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For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.
- If inhaled : Move the victim to fresh air and keep him calm.
No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Give small amounts of water to drink.
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.

5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Dry powder
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 : No information available.

THERMOSEPT ED**No Change Service!**

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

5.3 Advice for firefighters

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

Specific risk from the substance or the product itself, its combustion products or evolved gases : Fire may cause evolution of: Carbon monoxide, Carbon dioxide (CO₂)

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

Personal precautions : Ensure adequate ventilation.
Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water.

6.3 Methods and materials 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 chapter 8 + 13

7. Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : Avoid exceeding of the given occupational exposure limits (see section 8).
Use only with adequate ventilation/personal protection.

Advice on protection against fire and explosion : No special protective measures against fire required.

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 direct sunlight.
Keep away from heat.
Keep container tightly closed.

Advice on common storage : Keep away from food and drink.

7.3 Specific end use(s)

none

THERMOSEPT ED**No Change Service!**

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

8. Exposure controls/personal protection**8.1 Control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Glutaral	111-30-8	TLV	0,05 ppm	ACGIH
Ethanol	64-17-5	Permissible exposure limit	500 ppm 960 mg/m ³	TRGS 900
Ethanol	64-17-5	Ceiling Limit Value	1.000 ppm 1.920 mg/m ³	TRGS 900
Ethanol	64-17-5	Permissible exposure limit	1.000 ppm 1.900 mg/m ³	OSHA

8.2 Exposure controls**Personal protective equipment**

- Respiratory protection : Not required; except in case of aerosol formation.
- Hand protection : 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.
- Eye protection : Tightly fitting safety goggles
- Hygiene measures : Keep away from food and drink.
- Protective measures : Avoid contact with skin and eyes.
Do not breathe vapour.

Environmental exposure controls

- General advice : Do not flush into surface water.

9. Physical and chemical properties**9.1 Information on basic physical and chemical properties**

- Appearance : liquid
- Colour : colourless
- Odour : stinging
- Flash point : 63 °C, DIN 51755 Part 1
- Ignition temperature : Ethanol: > 360 °C
- Lower explosion limit : Ethanol: 3,1 %(V)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

Upper explosion limit	: Ethanol: 15 %(V)
Flammability	: Does not sustain combustion.
Explosive properties	: no data available
Oxidizing properties	: no data available
Auto-ignition temperature	: not determined
pH	: ca. 3,6, 20 °C, concentrate
Melting point/freezing point	: < -5 °C
Decomposition temperature	: no data available
Boiling point/boiling range	: ca. 90 °C
Vapour pressure	: ca. 35 hPa, 20 °C
Density	: ca. 1,04 g/cm ³ , 20 °C
Water solubility	: 20 °C, in all proportions
Partition coefficient: n-octanol/water	: not applicable
Viscosity, dynamic	: ca. 3,2 mPa*s, 20 °C, DIN 53019
Relative vapor density	: no data available
Evaporation rate	: no data available

9.2 Other information

None known.

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

None reasonably foreseeable.

10.4 Conditions to avoid

Protect from frost, heat and sunlight.

10.5 Incompatible materials

Strong bases
Strong acids and oxidizing agents
Amines
Ammonia

10.6 Hazardous decomposition products

Decomposition products : None reasonably foreseeable.

11. Toxicological information

11.1 Information on toxicological effects

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

Acute oral toxicity

- Glutaral : LD50: 158 mg/kg, rat
- Ethanol : LD50: 8300 mg/kg, mouse

Acute inhalation toxicity

- Glutaral : LC50: 0,48 mg/l, 4 h, rat, Aerosol, OECD Test Guideline 403
- Ethanol : LC50: 11200 mg/l, 1 h, mouse

Acute dermal toxicity

- Glutaral : LD50: > 2000 mg/kg, rabbit
- Ethanol : LD50: 20000 mg/kg, rabbit

Skin irritation

- : Classification: Causes burns.

Eye irritation

- : Classification: Causes burns.

Sensitisation

- : Practical experience:, May cause sensitization of susceptible persons.

Germ cell mutagenicity

- Glutaral : Result: Conflicting results have been seen in different studies. Did not show mutagenic effects in animal experiments.
- Ethanol : Result: Not mutagenic in Ames Test. , OECD Test Guideline 471

Genotoxicity in vivo

- Ethanol : Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Result: not mutagenic

Mutagenicity

- Glutaral : Did not show mutagenic effects in animal experiments.
- Ethanol : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

- Glutaral : Animal testing did not show any carcinogenic effects.
- Ethanol : Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

- Glutaral : Animal testing did not show any effects on fertility.
- Ethanol : In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.

Teratogenicity

- Ethanol : rat, Oral, NOAEL: 2.000 mg/kg

THERMOSEPT ED**No Change Service!**

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

Teratogenicity

- Glutaral : Did not show teratogenic effects in animal experiments.
Ethanol : Animal experiments showed mutagenic and teratogenic effects.

Repeated dose toxicity

- Glutaral : No adverse effect has been observed in chronic toxicity tests.
Ethanol : rat, Oral, NOAEL: 2.400 mg/kg

Further information

- : No data is available on the product itself. The classification was made according to the calculation procedure of the Preparations Directive.

12. Ecological information**12.1 Toxicity**

Toxicity to fish

- Glutaral : LC50: 9,4 mg/l, 96 h, *Lepomis macrochirus* (Bluegill sunfish)
Ethanol : LC50: 8.140 mg/l, 48 h, *Leuciscus idus* (Golden orfe)

Toxicity to daphnia and other aquatic invertebrates

- Glutaral : EC50: 5,75 mg/l, 48 h, *Daphnia magna* (Water flea)
Ethanol : EC50: > 5.000 mg/l, 48 h, *Daphnia magna* (Water flea)

Toxicity to algae

- Glutaral : EC50: 0,6 mg/l, 72 h, *Desmodesmus subspicatus* (green algae), OECD Test Guideline 201
Ethanol : IC50: > 100 mg/l, 72 h, *Scenedesmus quadricauda* (Green algae)

- Toxicity to bacteria : EC50: 217 mg/l, OECD 209

Toxicity to fish (Chronic toxicity)

- Glutaral : NOEC: 1,6 mg/l, 97 d, *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

- Glutaral : NOEC: 2,5 mg/l, 21 d, *Daphnia magna* (Water flea)

12.2 Persistence and degradability

- Biodegradability : Result: Readily biodegradable., OECD 301D / EEC 84/449 C6

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

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THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

Chemical Oxygen Demand : 5.200 mg/l, Test substance: 1% solution
(COD)

12.3 Bioaccumulative potential

Bioaccumulation

Glutaral : Bioaccumulation is unlikely.

Ethanol : Bioaccumulation is unlikely.

Partition coefficient: n- : not applicable
octanol/water

12.4 Mobility in soil

Mobility

Glutaral : Mobile in soils

Ethanol : no data available

12.5 Results of PBT and vPvB assessment

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

Additional ecological information : none

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 : EWC 070601

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

14. Transport information

ADR : UN number 1903



Proper shipping name
DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Glutaral)

Transport hazard class 8

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

schülke 

THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

Print Date 04.12.2013

IMDG : Packaging group III
Environmental hazards -
Classification Code C9
ADR/RID-Labels 8
ICAO-Labels 80
: UN number 1903



Proper shipping name

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Glutaral)

IATA : Transport hazard class 8
Packaging group III
Environmental hazards -
EmS F-A, S-B
: UN number 1903



Proper shipping name

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Glutaral)

Transport hazard class 8
Packaging group III
Environmental hazards -

Special precautions for user

ADR Tunnel restriction code: E

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

Exempt

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 (VOC) content : 5 %
Directive 1999/13/EC on the limitation of emissions of volatile organic compounds

15.2 Chemical Safety Assessment

Exempt

16. Other information

Full text of R-phrases referred to under sections 2 and 3

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



THERMOSEPT ED

No Change Service!

Version 02.04

Revision Date 29.10.2012

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R11	Highly flammable.
R20/22	Harmful by inhalation and if swallowed.
R23/25	Toxic by inhalation and if swallowed.
R34	Causes burns.
R42/43	May cause sensitization by inhalation and skin contact.
R50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400	Very toxic to aquatic life.

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.