

thermosept PAA Part A
Version 02.01

No Change Service!
Revision Date 22.01.2013

Print Date 09.01.2014

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

1.1 Product identifier

Trade name : thermosept PAA Part A

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

Producer : BIOXAL SA - AIR LIQUIDE Group
Route des Varennes - BP 72

71103 Chalon-sur-Saône Cedex
France
Telephone: + 33 (0) 3 85 92 30 00
Telefax: + 33 (0) 3 85 92 30 12

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)

Oxidising

R 8: Contact with combustible material may cause fire.

Harmful
Corrosive

R22: Harmful if swallowed.
R34: Causes burns.

2.2 Label elements

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according to Regulation (EC) No. 1907/2006

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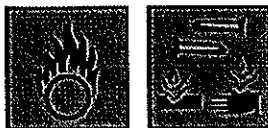
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Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Oxidising

Corrosive

R-phras(e)s :

R 8

Contact with combustible material may cause fire.

R22

Harmful if swallowed.

R34

Causes burns.

S-phras(e)s :

S 3/7

Keep container tightly closed in a cool place.

Keep away strong acids, alkalis, heavy metals and reducing agents.

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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:

- 79-21-0 Peracetic acid
- 7722-84-1 Hydrogen peroxide

2.3 Other hazards

Organic peroxide. Hazardous decomposition may occur.
Oxidizer. Contact with other material may cause fire.

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 (%)
Peracetic acid	607-094-00-8 79-21-0 201-186-8	R10 O; R 7 Xn; R20/21/22 C; R35	Flam. Liq. 3; H226 Org. Perox. D; H242 Acute Tox. 4; H302	5 %

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		N; R50	Acute Tox. 4; H312 Acute Tox. 4; H332 Skin Corr. 1A; H314 Aquatic Acute 1; H400 STOT SE 3; H335	
Hydrogen peroxide	008-003-00-9 7722-84-1 231-765-0 01- 2119485845- 22-XXXX	O; R 5 O; R 8 Xn; R20/22 C; R35		10 - 20 %
Acetic acid	607-002-00-6 64-19-7 200-580-7 01- 2119475328- 22-XXXX	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	10 - 20 %

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.
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- If inhaled : Move the victim to fresh air and keep him calm.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water.
Call a physician immediately.
- 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.
Call a physician immediately.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Give small amounts of water to drink.
Call a physician immediately.

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

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

5. Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Water spray jet
Foam
Dry powder

Unsuitable extinguishing media : Carbon dioxide (CO₂)
High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

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

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

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

Personal precautions : Ensure adequate ventilation.
Handle in accordance with good Industrial hygiene and safety practice.
Avoid contact with skin and eyes.
Do not breathe vapour.
Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions : Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Unsuitable material for picking up:
Absorbent material, organic.
Kieselguhr
Sawdust
Keep in suitable, closed containers for disposal.
Clean contaminated surface thoroughly.
Flush with water.

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6.4 Reference to other sections

See chapter 8 + 13

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Handle and open container with care.
Never return unused material to storage receptacle.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
Keep away from combustible material.
May cause or intensify fire; oxidiser.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep only in the original container.
Suitable container and packaging materials for safe storage
Plastic container of HDPE
Polyethylene
glass
Unsuitable materials for containers
Metals
Store in a receptacle equipped with a vent.
Keep in a bunded area.

Further information on storage conditions : Keep away from heat.
Keep away from direct sunlight.
Store in cool place.
Do not keep the container sealed.
Recommended storage temperature: 5 - 30°C

Advice on common storage : Do not store together with metals.
Do not store together with alkalis.
Do not store together with reducing agents.
Do not store together with combustible substances.

7.3 Specific end use(s)

none

8. Exposure controls/personal protection

8.1 Control parameters

Component	CAS No.	Value	Control parameter (GHS)	Basis
Hydrogen peroxide	7722-84-1	Permissible exposure limit	0,5 ppm 0,71 mg/m ³	DFG
Hydrogen peroxide	7722-84-1	Permissible exposure limit	1 ppm 1,4 mg/m ³	OSHA

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Acetic acid	64-19-7	Permissible exposure limit	10 ppm 25 mg/m3	EC/2000/39
Acetic acid	64-19-7	Permissible exposure limit	10 ppm 25 mg/m3	OSHA

DNEL

Hydrogen peroxide

: End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Short-term exposure
Value: 3 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Long-term exposure
Value: 1,4 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Short-term exposure
Value: 1,93 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Long-term exposure
Value: 0,21 mg/m3

Acetic acid

: End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Acute effects, Short-term exposure
Value: 25 mg/m3

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Local effects, Chronic effects, Long-term exposure
Value: 25 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Acute effects, Short-term exposure
Value: 25 mg/m3

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Local effects, Chronic effects, Long-term exposure
Value: 25 mg/m3

PNEC

Hydrogen peroxide

: Fresh water
Value: 0,0126 mg/l

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Acetic acid

- Marine water
Value: 0,0126 mg/l
- Water
Value: 0,0138 mg/l
- Effects on waste water treatment plants
Value: 4,66 mg/l
- : Fresh water
Value: 3,058 mg/l
- Marine water
Value: 0,3058 mg/l
- Fresh water sediment
Value: 11,36 mg/kg
- Marine sediment
Value: 1,136 mg/kg
- Water
Value: 30,58 mg/l
Intermittent use/release
- Soil
Value: 0,478 mg/kg
- Effects on waste water treatment plants
Value: 85 mg/l

8.2 Exposure controls

Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

- Respiratory protection : If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.
Combination filter:
A2B2E2K1P2
- Hand protection : Splash protection: disposable nitrile rubber gloves e.g. Dermatrill (layer thickness: 0,11 mm) made by KCL or gloves from other manufacturers offering the same protection.
Prolonged contact: Nitrile rubber gloves e.g. Camatrill (>120 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
Face-shield

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- Skin and body protection** : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Wear as appropriate:
Chemical resistant apron
Boots
Neoprene
- Hygiene measures** : When using do not eat or drink.
Take off all contaminated clothing immediately.
- Protective measures** : Do not breathe vapour.
Avoid contact with skin and eyes.
- Environmental exposure controls**
- General advice** : Avoid subsoil penetration.
Do not flush into surface water or sanitary sewer system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : liquid
Colour : colourless
Odour : pungent
- Flash point : not applicable
Ignition temperature : Acetic acid: ca. 485 °C
Lower explosion limit : Acetic acid: 6 %(V)
Upper explosion limit : Acetic acid: 17 %(V)
Flammability : The product itself does not burn, but it is oxidising.
- Explosive properties : Not explosive
Oxidizing properties : oxidizing
Auto-ignition temperature : not applicable
pH : < 1, 20 °C, concentrate
Melting point/freezing point : < -33 °C
Decomposition temperature : no data available
Boiling point/boiling range : ca. 105 °C
Vapour pressure : 21 hPa, ca. 20 °C
Density : 1,1 g/cm³, 20 °C
Water solubility : completely soluble
- Partition coefficient: n-octanol/water : not applicable
Viscosity, dynamic : no data available
Relative vapor density : no data available
Evaporation rate : no data available

9.2 Other Information

None known.

10. Stability and reactivity

10.1 Reactivity

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Stable under recommended storage conditions.

10.2 Chemical stability

Self-Accelerating decomposition temperature (SADT): >60°C

10.3 Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.
Keep away from combustible material.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Strong acids and strong bases
Reducing agents
Acid chlorides
Aldehydes
Metals

10.6 Hazardous decomposition products

Decomposition products : Oxygen

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Peracetic acid : LD50: 315 mg/kg, rat, literature value
Hydrogen peroxide : LD50: 801 - 872 mg/kg, rat, Harmful if swallowed.
Acetic acid : LD50: 3310 mg/kg, rat

Acute inhalation toxicity

Peracetic acid : LC50: 0,59 mg/l, 1 h, rat, OECD Test Guideline 403
Hydrogen peroxide : LC0: 16,1 mg/l, 4 h, vapour
Acetic acid : LC50: > 39,8 mg/l, 4 h, rat

Acute dermal toxicity

Peracetic acid : no data available
Hydrogen peroxide : LD50: > 2000 mg/kg, rat
Acetic acid : LD50: 1060 mg/kg, rabbit

Skin irritation

Peracetic acid : rabbit, Result: Causes severe burns., OECD Test Guideline 404

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Hydrogen peroxide : rabbit, Result: Corrosive
Acetic acid : rabbit, Result: Corrosive

Eye irritation

Peracetic acid : rabbit, Result: Corrosive
Hydrogen peroxide : rabbit, Result: Risk of serious damage to eyes.
Acetic acid : rabbit, Result: Risk of serious damage to eyes.

Sensitisation

Peracetic acid : guinea pig, Result: Did not cause sensitization on laboratory animals.
Hydrogen peroxide : guinea pig, Result: Did not cause sensitization on laboratory animals.
Acetic acid : Result: no data available

Germ cell mutagenicity

Peracetic acid : Ames test, Result: negative
Hydrogen peroxide : Ames test, Result: negative
Acetic acid : Ames test, Result: negative

Genotoxicity in vivo

Hydrogen peroxide : in vivo assay, Result: not mutagenic

Mutagenicity

Peracetic acid : Animal testing did not show any mutagenic effects.
Hydrogen peroxide : Not mutagenic in Ames Test.
Acetic acid : Not mutagenic in Ames Test.

Carcinogenicity

Peracetic acid : Animal testing did not show any carcinogenic effects.
Hydrogen peroxide : Animal testing did not show any carcinogenic effects.
Acetic acid : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Peracetic acid : rat, Oral, NOAEL: 200 mg/l, F1: 200 mg/l

Reproductive toxicity

Peracetic acid : Animal testing did not show any effects on fertility.
Hydrogen peroxide : Animal testing did not show any effects on fertility.
Acetic acid : Animal testing did not show any effects on fertility.

Teratogenicity

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Peracetic acid	: no data available
Hydrogen peroxide	: Embryotoxicity classification not possible from current data.
Acetic acid	: no data available
Repeated dose toxicity	
Acetic acid	: rat, Oral, Exposure time: 14-days, NOAEL: 1.800 mg/kg
Further information	: The product has not been tested. The classification was made according to the calculation procedure of the Preparations Directive. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

12. Ecological information

12.1 Toxicity

Toxicity to fish

Peracetic acid	: LC50: 13 mg/l, 96 h, semi-static test, OECD Test Guideline 203
Hydrogen peroxide	: LC50: 16,4 - 37,4 mg/l, 96 h, Fish
Acetic acid	: LC50: 251 mg/l, 96 h, Gambusia affinis (Mosquito fish), static test

Toxicity to daphnia and other aquatic invertebrates

Peracetic acid	: EC50: 3,3 mg/l, 48 h, Daphnia magna, OECD Test Guideline 202
Hydrogen peroxide	: EC50: 2,4 mg/l, 48 h, Daphnia magna
Acetic acid	: EC50: 95 mg/l, 24 h, Daphnia magna

Toxicity to algae

Peracetic acid	: no data available
Hydrogen peroxide	: EC50: 2,5 mg/l, 72 h, Chlorella vulgaris (Fresh water algae)
Acetic acid	: EC100: 720 mg/l, 0,25 h, Euglena gracilis

12.2 Persistence and degradability

Biodegradability

Peracetic acid	: Result: Totally biodegradable, OECD Test Guideline 301
Hydrogen peroxide	: Result: Totally biodegradable, OECD Test Guideline 301
Acetic acid	: Result: Totally biodegradable, OECD 301D / EEC 84/449 C6

12.3 Bioaccumulative potential

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Bioaccumulation

Peracetic acid : Does not bioaccumulate.
Hydrogen peroxide : Does not bioaccumulate.
Acetic acid : Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : not applicable

12.4 Mobility in soil

Mobility

Peracetic acid : Water, Hydrolyses readily.
Hydrogen peroxide : Water, Hydrolyses readily.
Acetic acid : 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 : The product has not been tested.

13. Disposal considerations

13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (European Waste Code) No. Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Take empty packaging to the recycling plant.

Waste key for the unused product : EWC 160903

Waste key for the unused product(Group) : peroxides, e.g. hydrogen peroxide

14. Transport information

ADR : UN number 3149



Proper shipping name

HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

Transport hazard class 5.1

Packaging group II

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IMDG : Environmental hazards -
Classification Code OC1
ADR/RID-Labels 5.1 + 8 + 11
ICAO-Labels 58
UN number 3149



IATA : Proper shipping name
HYDROGEN PEROXIDE AND PEROXIACETIC ACID MIXTURE, STABILIZED
Transport hazard class 5.1
Packaging group II
Environmental hazards -
EmS F-H, S-Q
UN number 3149



Proper shipping name
HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED
Transport hazard class 5.1
Packaging group II
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 : The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC concerning the control of major accident hazards.

15.2 Chemical Safety Assessment

Exempt

16. Other information

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

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R 5	Heating may cause an explosion.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R50	Very toxic to aquatic organisms.

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

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.