

1. Identification of the substance / preparation

Name of product	Optisal N
Use of the preparation	disinfectant for medical inventory and surfaces
Manufacturer/distributor	Dr. Schumacher GmbH Post box 11 62; D-34201 Melsungen Germany Phone ++49 5664 9496-0; Fax: ++49 5664 8444
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2. Hazards identification

Classification

C - Corrosive; **N** - Dangerous for the environment

R-Phrases

34 Causes burns.
50 Very toxic to aquatic organisms.

3. Composition / information on ingredients

Chemical characterization

Aqueous solution containing detergents and solvents.

Hazardous ingredients

CAS-No.	EC-No.	Name	weight-%	Classification
2372-82-9	219-145-8	N-(3-Aminopropyl)- N-dodecylpropan-1,3-diamine	< 10	C, Xn, N R22-35-50
68439-46-3		alcoholethoxylate C9-C11	< 10 %	Xn, Xi R22-41

Full text of R-phrases: see chapter 16.

4. First Aid Measures

(for additional information see chapter 16: Other information)

General Advice

Remove contaminated, saturated clothing immediately.
If you feel unwell, seek medical advice.

In case of inhalation

Move affected person into fresh air in case of inhalation of vapour or decomposition products.
If symptoms persist, call a physician.

In case of skin contact

Wash off immediately with soap and plenty of water.

If skin irritation persists, call a physician.

In case of eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes, also under the eyelids. Consult an ophthalmologist immediately.

In case of ingestion

Do not induce vomiting. Rinse mouth with water. Drink plenty of water.
Seek medical advice and show the container or label.
Attention! Danger of suffocation because of foaming ingredients.

5. Fire - Fighting measures

(for additional information see chapter 16: Other information)

Suitable extinguishing media

Product itself does not burn, co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons

High volume water jet

Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases

Fire may produce:

Carbon monoxide (CO), dioxide (CO₂) and nitrogen oxides (NOX).

Special protective equipment for fire-fighters

Use a self contained breathing apparatus with independent air supply. Wear protective clothing.

Further information

Cool containers at risk with water spray.

Combustion residues and contaminated fire water have to be disposed of according to the local official regulations.

6. Accidental release measures

(for additional information see chapter 16: Other information)

Personal precautions

In case of vapour formation (high concentration) use respirator. Ensure adequate ventilation.
Wear personal protective clothing.

Environmental precautions

Do not flush into surface water, ground water or sanitary sewer system.
Do not allow to enter into soil/subsoil.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Take up mechanically, placing in appropriate container for disposal.

7. Handling and storage

(for additional information see chapter 16: Other information)

Handling

Advice on safe handling

Keep container tightly closed.
Avoid contact with skin, eyes and clothing.
Use only in well-ventilated areas.

Precautions against fire and explosion

No special protective measures against fire required.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed in a dry and well-ventilated place.

Hints on storage assembly

Incompatible with oxidising agents and strong acids.

Further information on storage conditions

Keep away from food, drinks and animal feeding stuffs.

Storage class (VCI) 8 B

8. Exposure controls / personal protection

(for additional information see chapter 16: Other information)

Exposure controls

Engineering measures to reduce exposure

Ensure adequate ventilation, especially in confined areas.

Personal protection equipment

General protection measures

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

Avoid contact with eyes and skin and clothing.

Remove contaminated clothing immediately and wash before reuse.

Respiratory Protection

In case of inadequate ventilation (high concentration) wear suitable respiratory equipment (gas filter type A).

Hand protection

Protective gloves

Suitable protective gloves:

This recommendation is solely based on the chemical compatibility and the test after EN 374 under laboratory conditions. According to the use varying requirements may develop. Therefore the recommendations of the protective glove distributor have to be considered additionally.

Material	Thickness of the glove material	Breakthrough time (maximal wear duration)
CR (polychloroprene, chloroprene rubber)	0.5 mm	> = 4 h
NBR (nitrile rubber)	0.35 mm	> = 4 h
Butyl (butyl rubber)	0.5 mm	> = 4 h
FKM (fluoro rubber)	0.4 mm	> = 4 h
PVC (polyvinyl chloride)	0.5 mm	> = 4 h

Eye protection

Eye glasses with side protection, tightly fitting safety goggles.
Eye wash bottle with pure water.

Skin and body protection

Long sleeved clothing

9. Physical and chemical properties

General information

Physical state	liquid
Colour	yellowish, clear
Odour	aromatic, fresh

Important health, safety and environmental information

pH - Value (20 °C)	9 - 10
Change in physical state	
Melting point	n. d.
Boiling point	n. d.
Flash point	n. a.
Flammability	
Explosion limits lower	n. a.
Ignition temperature	n. d.
Autoignition temperature	n. a.
Specific gravity (20 °C)	ca. 1.00 g/cm ³
Solubility in water	miscible
Dynamic viscosity	n. d.

10. Stability and reactivity

(for additional information see chapter 16: Other information)

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Material to avoid

Strong acids and oxidising agents.

Hazardous decomposition products

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x).

Further information

No decomposition if stored and applied as directed.

11. Toxicological Information

(for additional information see chapter 16: Other information)

Human practical experience

The product causes burns of eyes, skin and mucous membranes.
Swallowing may cause burns or irritation of stomach and intestine.

Further information

Beware ! Hazard of foam aspiration when swallowed.

Acute toxicity, oral (LD 50) *	261 mg/kg, species: rat OECD 401
Acute toxicity, dermal *	> 600 mg/kg, species: rabbit OECD 402
Irritant effect on the skin *	Corrosive, species: rabbit exposure time 3 min. OECD 404
Sensitisation *	not sensitising, species: guinea pig Buehler test, OECD 406
Genotoxicity *	negative, Ames test, Salmonella typhimurium OECD 471

(*) data for active ingredient N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine

12. Ecological Information

(for additional information see chapter 16: Other information)

Ecotoxicity

Acute Fish toxicity (LC50)*:	0.68 mg/l Species: Oncorhynchus mykiss (rainbow trout) Exposure time: 96 h OECD TG 203
Acute Fish toxicity (LC50)*:	0.45 mg/l Species: Lepomis macrochirus (bluegill) Exposure time: 96 h US-EPA
Acute daphnia toxicity (EC50)*:	0.073 mg/l Species: Daphnia magna (Big water flea) Exposure time: 48 h US-EPA
Daphnia toxicity (NOEC)*:	0.024 mg/l Species: Daphnia magna (Big water flea) Exposure time: 21 d OECD 211
Algae toxicity (ErC50)*:	0.039 mg/l Species: Selenastrum capricornutum (green algae) Inhibition of growth rate Exposure time: 72 h US-EPA
Algae toxicity (EbC50)*:	0.012 mg/l Species: Scenedesmus subspicatus (green algae) Inhibition of growth rate Exposure time: 72 h

	OECD TG 201
Bacteria toxicity (EC50)*:	18 mg/l Species: Activated sludge Respiratory inhibition of municipal activated sludge Exposure time: 3 h OECD 209
Terrestrial toxicity (LC50)*:	> 1000 mg/kg Species: Rainworm Acute rainworm toxicity Exposure time: 14 d OECD 207

(*) data for the active ingredient N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine

Persistence and degradability

Stability in water *:	hydrolytically stable
Biodegradation*:	OECD Confirmatory Test: ca. 96 % Duration: 12 -15 d OECD 303 A Zahn-Wellens Test: 91 % Duration: 28 d OECD 302 B Closed-bottle test: 79 %, Readily biodegradable Duration: 28 d OECD 301 D

(*)data for the active ingredient N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine

General information

Do not flush concentrate into surface water, ground water or sanitary sewer system.
Water-endangering. Very toxic to aquatic organisms.

The surfactants contained in this preparation 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.

13. Disposal information

Product

Recommendation

Where possible recycling is preferred to disposal.
Can be incinerated according to the local regulations.

Waste code no.

07 06 01

Name of waste

Wastes from organical-chemical processes; wastes from fats, lubricants, soaps, disinfectants, detergents and hygiene products; wastes not otherwise specified.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal. Contaminated packaging is to be emptied optimally, after adequate cleaning it can be given to recycling. Packaging which is impossible to clean is to be disposed of like the product.

Recommended material for cleaning

Water.

14. Transport Information

Land transport (ADR/RID)

ADR/RID class	8
Classification code	C9
Hazard No.	80
UN-No.	1903
Hazard label	8
ADR/RID packing group	III
Limited quantity (LQ)	LQ 7

Official transport designation

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine)

Remark

LQ 7: combination packaging: 5 l / 30 kg; trays: 5 l / 20 kg (total gross weight).

Inland waterway craft (ADN/ADNR)

Marine transport (IMDG)

IMDG class	8
UN-No.	1903
Marine pollutant	No
EMS-No.	F-A, S-B
Limited quantity (LQ)	5 l / 30 kg
IMDG packing group	III
Hazard label	8

Proper shipping name

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine)

Remark

Limited quantity (chapter 3.4): combined packaging: 5 l / 30 kg (gross weight); trays: 5 l / 20 kg (total gross weight).

Air transport (ICAO-TI / IATA-DGR)

ICAO/IATA class	8
UN/ID-No.	1903
Hazard label	8
IATA packing instructions – passenger	818
IATA maximum quantity – passenger	5 L
IATA packing instructions – cargo	820
IATA maximum quantity – cargo	60 L
ICAO packing group	III
Limited quantity (LQ) passenger	Y818 / 1 L

Proper shipping name

DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (N-(3-aminopropyl)-N-dodecylpropan-1,3-diamine)

Special provisions

Germany / postage: national: max. 3000 ml per item; max. 6000 ml per package; international: not allowed

15. Regulatory information

Classification

Classification regulations

According to EC hazardous substance regulations in compliance with the EC guidelines this product must be labelled as:

C - Corrosive; **N** - Dangerous for the environment.

R-Phrases

34 Causes burns.
50 Very toxic to aquatic organisms.

S-Phrases

26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
35 This material and its container must be disposed of in a safe way.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazard(ous) component(s) for labelling

N-(3-aminopropyl)-N-dodecylpropan-1,3-diamin

National regulations

Restrictions of occupation Observe restrictions of occupation for juvenils (acc. to § 22 JArbSchG). Observe employment restrictions for pregnant and nursing mothers (acc. to §§ 4 and 5 MuSchRiV).

Störfallverordnung Observe regulations of the Störfallverordnung.

Technische Anleitung Luft III 5.2.5: Organic compounds, m \geq 0.50 kg/h: Conc.. 50 mg/m³
Weight fraction < 25 %

Water hazard class (WGK) 2 - water endangering (WGK II)
Classification Classification according VwVwS, Annex 4; No.3

Informations according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

VOC-content 0 %

16. Other information

Full wording of the R-phrases specified in chapter 2 and 3

22 Harmful if swallowed.
34 Causes burns.
35 Causes severe burns.
41 Risk of serious damage to eyes.
50 Very toxic to aquatic organisms.

Additional information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

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The information describes exclusively the safety requirements for the product(s) and is based on the present level of knowledge. It does not constitute a guarantee for the characteristics of the described product(s) as defined by the legal warranty regulations. The delivery specifications are contained in the corresponding product sheet.

(n. a. - not applicable, n. d. - not determined)

(The data of the hazardous substances are based on the current material data safety sheets of the supplier.)