

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

1.1. Product identifier

Dentoderm HD Liquid

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

Use of the substance/mixture

Hand disinfectant

1.3. Details of the supplier of the safety data sheet

Company name: Müller-Omicron GmbH & Co. KG

Street: Schlosserstr. 1

Place: D-51789 Lindlar

Telephone: +49 (0) 2266/4742-0

Telefax: +49 (0) 2266/3417

e-mail: einkauf@mueller-omicron.de

Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F - Highly flammable

R phrases:

Highly flammable.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye irritation.

2.2. Label elements

Signal word:

Danger

Pictograms:

GHS02-GHS07



Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

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.

P501 Dispose of contents/container to approved disposal company or local collection.

2.3. Other hazards

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients
3.2. Mixtures**Chemical characterization**

Alcoholic solution

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-578-6	Ethanol	80 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2, Eye Irrit. 2; H225 H319	
01-2119457610-43		
270-325-2	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	< 0,25 %
68424-85-1	C - Corrosive, Xn - Harmful, N - Dangerous for the environment R22-34-50	
	Met. Corr. 1, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1; H290 H302 H314 H318 H400 H410	
01-2119965180-41		

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures**General information**

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.

In the event of symptoms refer for medical treatment.

After contact with skin

Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If eye irritation persists, consult a specialist.

After ingestion

Rinse out mouth and give plenty of water to drink.

Seek medical treatment immediately.

If swallowed or in the event of vomiting, risk of entering the lungs.

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

Causes serious eye irritation.

Inhalation of vapours in high concentration can cause narcotic effects.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures
5.1. Extinguishing media**Suitable extinguishing media**Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.**Unsuitable extinguishing media**

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

carbon monoxide and carbon dioxide
Risk of formation of toxic pyrolysis products.

5.3. Advice for firefighters

Use breathing apparatus with independent air supply.
Protective suit.

Additional information

Vapours are heavier than air and spread along ground.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator.
Ensure adequate ventilation.
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.
Use solvent-resistant equipment.
Avoid spilling or spraying in enclosed areas.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.
Take measures against electrostatically charging.
Vapours are heavier than air and spread along ground.
Vapour/air mixture is explosive, even in empty uncleaned receptacles.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.
Protect containers from heat / overheating.
Keep only in original container.

Advice on storage compatibility

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Hand disinfectant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dentoderm HD Liquid

00320-0097-GHS

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

8.2. Exposure controls**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not breath vapours or spray mist.

When using do not eat, drink or smoke.

Avoid contact with eyes.

Remove and wash contaminated clothes before re-use.

Eye/face protection

If used properly, no need to wear eye protection. Otherwise wear protective goggles with integrated side shields.

Skin protection

Long sleeved clothing (EN 368).

Respiratory protection

No personal respiratory protective equipment normally required.

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

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):	4,8 - 6
Melting point:	< - 20 °C
Initial boiling point and boiling range:	approx. 85 °C
Flash point:	14 °C
Lower explosion limits:	3,5 vol. %
Upper explosion limits:	15 vol. %
Density (at 20 °C):	approx. 0,84 g/cm ³
Water solubility: (at 20 °C)	Miscible
Ignition temperature:	> 425 °C

9.2. Other information

No data available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4. Conditions to avoid

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

10.5. Incompatible materials

oxidizing agents

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10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

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

LD50/oral/rat: > 10 g/kg (OECD 401)

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
64-17-5	Ethanol				
	oral	LD50	6200 mg/kg	Rat	
	inhalative (4 h) vapour	LC50	95,6 mg/l	Rat	
68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides				
	oral	LD50	795 mg/kg	Rat	

Irritation and corrosivity

Causes serious eye irritation.

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

Skin irritation: Not classified.

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

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

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

Practical experience**Other observations**

Inhalation of vapours in high concentration can cause narcotic effects.

Components of the product may be absorbed into the body through the skin.

May cause irritation of the mucous membranes.

SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
64-17-5	Ethanol					
	Acute fish toxicity	LC50	8140 mg/l	96 h	Golden orfe	
	Acute crustacea toxicity	EC50	9268 - 14221 mg/l	48 h	Daphnia magna	
68424-85-1	Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides					
	Acute fish toxicity	LC50	0,085 mg/l	96 h	Oncorhynchus mykiss	OECD 203)
	Acute algae toxicity	ErC50	0,025 mg/l	72 h	Selenastrum capricornutum	OECD 201)
	Acute crustacea toxicity	EC50	0,016 mg/l	48 h	Daphnia	
	Crustacea toxicity	NOEC	0,025 mg/l	21 d	Daphnia	OECD 201)

12.2. Persistence and degradability

No data available.

Ethanol: Readily biodegradable (to OECD criteria).

12.3. Bioaccumulative potential

No data available.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	Ethanol	- 0,31

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects

Product can contain organically bound halogen and contribute to the adsorbable organic halogen value.

Low hazard to waters.

Further information

Ecological injuries are not known or expected under normal use.

Do not discharge into surface waters/groundwater.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

Waste disposal number of waste from residues/unused products

070604 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

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



- Classification code: F1
- Limited quantity: 1 L / 30 kg
- Transport category: 2
- Hazard No: 33
- 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. (Ethanol)

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14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Classification code: F1

Limited quantity: 1 L / 30 kg

Marine transport (IMDG)

14.1. UN number: UN 1987

14.2. UN proper shipping name: ALCOHOLS, N.O.S. (Ethanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Marine pollutant: No

Limited quantity: 1 L / 30 kg

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. (Ethanol)

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3



Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 353

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 364

IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Take the usual precautions when handling with chemicals.

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

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): 80 %

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

EN = European norm

ISO = International Organization for Standardization

DIN = Deutsche Industrie Norm

PBT = Persistent Bioaccumulative and Toxic

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

Relevant R phrases (number and full text)

- 11 Highly flammable.
- 22 Harmful if swallowed.
- 34 Causes burns.
- 50 Very toxic to aquatic organisms.

Relevant H and EUH statements (number and full text)

- H225 Highly flammable liquid and vapour.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

Further 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.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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