



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 19.11.2018
Date of entry into force: 19.11.2018

Version: 9
Replaces version: -

Fugaten

This is the English translation of the German SDS (for Germany).

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

1.1 Product identifier

Trade name: Fugaten

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

Use of the mixture:

Rapid disinfection of surfaces, objects and medical devices
For professional use

1.3 Details of the supplier of the safety data sheet

Department providing information: Department of Science and Technology Berlin

E-mail: kontakt@lysoform.de
Telephone: +49 30 77992-226

Supplier (distributor):

Lysoform Dr. Hans Rosemann GmbH
Kaiser-Wilhelm-Str. 133
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Tel.: +49 30 / 77992-0
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1.4 Emergency telephone number Germany

Munich toxicological department
Klinikum rechts der Isar
Ismaninger Str. 22, 81675 Muenchen
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Section 2: Hazards identification

2.1 Classification of the substance or mixture

CLP classification (EG) Nr. 1272/2008:

Flam. Liq.: Kat.2 H225
Eye Irrit.: Kat.2 H319



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2.2 Label elements

Symbols und signal word:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves and eye protection.
P305 + IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if easy
P351 + to do. Continue rinsing.
P338
P337 + If eye irritation persists: Get medical advice.
P313

Hazardous ingredient for labelling:

Ethanol denatured

2.3 Other hazards

The mixture does not meet the criteria for classification as PBT or vPvB.
In exceptional situations (for example: fumigation, effect of heat or leakage of large amounts in unventilated spaces) it may form explosive air mixtures.

Section 3: Composition/information on ingredients

3.1 Substances

This product is a mixture.

3.2 Mixtures

Chemical characterization:

Ethanol

EG-No: 200-578-6 CAS-No: 64-17-5 REACH-Reg.no: 01-2119457610-43

Quantity : 65 - 75 %

Flam. Liq.: Kat.2 H225 Highly flammable liquid and vapour.

Eye Irrit.: Kat.2 H319 Causes serious eye irritation.



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Section 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately seek medical advice. Show the Safety Data Sheet, container or label.

Inhalation:

Supply fresh air.

Skin contact:

Take off soaked clothes. Rinse skin with plenty of water and seek medical attention if skin irritation persists.

Eye contact:

Rinse opened eye for several minutes with plenty of drinking water. If eye irritation persists seek medical advice.

Ingestion:

Do not induce vomiting. Rinse mouth with drinking water and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Acute: mucous membrane irritation

Delayed: After oral absorption, interference with the central nervous system, e.g. Dizziness and narcotic effects occur. Facial and skin redness by dilation of the blood vessels.

4.3 Indication of any immediate medical attention and special treatment needed

No information

Section 5: Firefighting measures

5.1 Extinguishing media

Water spray, carbon dioxide, dry powder, alcohol-resistant foam

5.2 Special hazards arising from the substance or mixture

Alcoholic vapours are heavier than air and may spread along floors.

During heating or in case of fire poisonous gas may develop:

For example: carbon monoxide, carbon dioxide and explosive vapour / air mixtures

5.3 Advice for firefighters

Wear self-contained breathing apparatus. Cool endangered containers or persons with water spray.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep ignition sources away - do not smoke.

Ensure adequate ventilation.

6.2 Environmental precautions

Do not allow to reach sewage system / surface or ground water.



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6.3 Methods and material for containment and cleaning up

Wipe up with absorbent material (cloth, fleece, sand, universal binders).
Larger quantities: Apply suction cleaning.

6.4 Reference to other sections

Safe handling (section 7), personal protective equipment (section 8) and disposal considerations (section 13)

Section 7: Handling and storage

7.1 Precautions for safe handling

Notes for safe handling:

Application of a maximum of 50 ml/m² room surface area (TRGS 525). Keep container tightly closed. Ensure good ventilation / exhaustion at the workplace. Before using electrical equipment, wait for the alcoholic disinfectant to dry on the surfaces. Caution near alcohol-sensitive materials (for example: acrylic, paint, pickling, lacquered jewellery or watches of certain plastic).

Notes on general hygiene measures at the workplace:

Keep away from food. Take off all contaminated clothing immediately. Avoid contact with eyes.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and containers

Keep cool, but frost-free, well ventilated and dry. Keep out of the reach of children. Store in the original container.

Further information about storage conditions

Keep away from heat and direct sunlight.

Keep separate from food.

Information about fire and explosion protection

Can form explosive gas-air mixtures. Good ventilation, especially at floor level. Vapours are heavier than air. Keep ignition sources away - do not smoke. Take measures to prevent electrostatic charging.

Storage class: 3 (TRGS 510)

7.3 Specific end use(s)

No specific end use known.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Ingredient	CAS-No	Value	Base
Ethanol	64-17-5	Occupational Exposure Limits: 380 mg/m ³ , 200 ml/m ³ 4(II) DFG, Y	TRGS 900



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8.2 Exposure controls

Individual protection measures - Personal protective equipment:

General health and safety measures

Keep away from foodstuff, beverages and feed. Avoid contact with eyes.

Respiratory protection

With good room ventilation, respiratory protection is not necessary.

In exceptional circumstances a respirator with filter A (EN 14387) may be used.

Hand protection

Impermeable gloves

Penetration time of glove material

The resistance of gloves is dependent on many features (material, layer thickness, manufacturer, temperature, stress and duration of contact) and not predictable in advance. Each user has to test the resistance of the gloves for his personal use. Penetration times according to EN 374 are specified by manufacturers and provide guidance for the comparison of gloves.

Material recommendations

Butyl rubber

Short-term contact: Simple household gloves may be sufficient.

Skin protection

In order to prevent skin irritations in the professional field, the following is - regardless of the actual contact with disinfectants - recommended:

- Fast skin penetrating care cream in between if needed.
- A greasy cream after washing at the end of work or before work breaks.

Eye / face protection

Tight-closing eye protection

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

If no information on the mixture is available, relevant information on ingredients may also be provided in the form "ingredient: indication".

Appearance

- Physical state:	Liquid
- Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Ethanol: 19 – 93 mg/m ³ (0.001 - 0.0048 Vol.%)
pH at 20 °C:	Ca. 9,3
Melting point:	Ethanol: -114,5 °C (OECD 102)
Initial boiling point / boiling range:	Ethanol: 78 °C
Flash point:	19,5 °C (DIN 51755)
Evaporation rate:	Not determined
Flammability:	Not determined
Explosion limits in air:	Ethanol: 2,5 – 15 % (Vol.%)
Vapour pressure:	Ethanol: 59 hPa / 20 °C
Vapour density, relative (air = 1):	Ethanol: 1.59
Density at 20 °C:	Ca. 0.86 g/cm ³



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Solubility in water:	Any
Partition coefficient n-octanol / water:	For a mixture not applicable.
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not applicable, no known decomposition
Viscosity:	Not determined
Oxidising properties:	Not determined

9.2 Other information

Further physical and chemical data have not been determined.

Section 10: Stability and reactivity

10.1 Reactivity

No hazardous reactions if stored and used as described.

10.2 Chemical stability

No decomposition if stored and used as described.

10.3 Possibility of hazardous reactions

No hazardous reactions if stored and used as described.

10.4 Conditions to avoid

See section 7

10.5 Incompatible materials

No incompatible materials known.

10.6 Hazardous decomposition products

No decomposition if stored and used as described.

Section 11: Toxicological information

11.1 Information on toxicological effects

The active compound has been extensively studied with regard to the toxic profile. The exposure is safe if handled as prescribed. In consideration of the mixture no deviant results are expected. The mixture was therefore not examined in all categories. For toxicological effects use the information on hazardous substance.



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11.1.1 For the mixture:

Acute toxicity

LD/LC₅₀:

Oral: not toxic (14,7 ml/kg rat)

Skin corrosion/irritation

Serious eye irritation

Serious eye damage/irritation

OECD 405 rabbit: „moderate irritant“

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Symptoms and effects (delayed and chronic) with details of the routes of exposure

Also: information on toxicokinetics, metabolism and distribution

No data available

11.1.2 For the substance:

Ethanol

Primary irritant effect:

Eyes: irritant (OECD- guideline 405)

Skin: not irritant (OECD- guideline 404)

Sensitization:

No sensitization (OECD 429 (Skin Sensitization - Local Lymph Node Assay))

Germ cell mutagenicity : It is not considered to be mutagenic.
OECD 471 / 475 / 476 / 473 / 471

Teratogenicity : No effects on or through the lactation

Symptoms:

Shortness of breath, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headache, intoxication, drowsiness, mucosal irritation, dizziness, nausea

Experiences with humans:

Excessive use of alcohol during pregnancy induces Foetal Alcohol Syndrome (reduced birth weight, physical and mental disorders).



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Section 12: Ecological information

The mixture was not tested for certain effects. Information on the hazardous substance should be used.

12.1 Toxicity

Ethanol

Toxicity:

LC₅₀ in 96 h: 13000 mg/l (Oncorhynchus mykiss) OECD 203 (Fish, Acute Toxicity Test)

LC₅₀ in 48 h: 12340 mg/l (Daphnia magna)

12.2 Persistence and degradability

Ethanol

97% OECD 301 B (Ready Biodegradability - CO₂ Evolution Test)

12.3 Bioaccumulative potential

Ethanol

BCF: 3.2 mg/l Log Pow: -0.32

12.4 Mobility in soil

Ethanol

No data available

12.5 Results of PBT and vPvB assessment

The mixture does not contain any substances that are assessed as PBT or vPvB.

12.6 Other adverse effects

The mixture is classified as water hazard class 2 (by German AwSV).

Section 13: Disposal considerations

13.1 Waste treatment methods

Treatment of the mixture

Disposal in compliance with local regulations. Waste should not be disposed of via wastewater.

Treatment of contaminated packaging

Completely emptied containers can be recycled.

Waste code according to AVV

07 06 04 for the product

15 01 02 for the primary packaging

Relevant EU or other regulations

German law: KrW-/AbfG (Kreislaufwirtschafts- und Abfallgesetz)



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Section 14: Transport information

14.1 UN-number: 1170

14.2 Proper shipping name

All modes of transport: ETHANOL SOLUTION

14.3 Transport hazard class(es)

Land: ADR/RID and GGVS/GGVE class: 3
Tunnel restriction code: D/E

Sea: IMDG/GGV Sea-class: 3
EMS-number: F-E, S-D

Air: ICAO-TI / IATA-DGR-class: 3

14.4 Packing group

II

14.5 Environmental hazards

Labelling environmentally hazardous substances

ADR/RID / IMDG-Code / ICAO-TI / IATA-DGR: No
IMDG-Code: Marine Pollutant: No

14.6 Special precautions for user (transport company)

No

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

No transport in bulk

Section 15: Regulatory information

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

EU-regulations:

1907/2006 REACH / 1272/2008 CLP GHS / 528/2012 Biocidal products / 98/24/EG Risks related to chemical substances / 648/2004 Detergents

German regulations:

Chemikaliengesetz ChemG / Gefahrstoffverordnung GefStoffV / TRGS und Bekanntmachungen / Betriebssicherheitsverordnung BetrSichV / Jugendarbeitsschutzgesetz / Mutterschutzgesetz / Guidelines Berufsgenossenschaften

Other information:

Biocide: BAuA Reg.-No: N-14992, N-14994

15.2 Chemical safety assessment

For this mixture no chemical safety assessment has been carried out.



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Section 16: Other information

Changes since the publication of the previous version

Version 9: First English version / Version number of the SDS is similar to the German SDS

Literature and data sources

TRGS / Gestis / professional associations / MSDS of ingredients

Methods in accordance with Article 9 of Regulation (EC) no. 1272/2008 used to evaluate the information for the purpose of classification.

Classification was based on the components and the physical and chemical properties.

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product with regard to the safety requirements. The information should not be regarded in any way as a description of the nature of the goods (product specification). Any agreed property or the suitability of the product for a specific purpose can not be derived from our information in the Safety Data Sheet. We will advise you whether, the preparation is suitable for a defined purpose. Any proprietary rights and existing laws and regulations must be observed by the recipient of our product (responsibility of the recipient).