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

· **Informations to product No. 7058**

· **Product name:**

Isopropylalkohol, 2-Propanol Alcohol isopropylicus

· **Supplier of the Product / responsible Company:**

Caesar & Loretz GmbH

Herderstr. 31

40721 Hilden

Tel.: 02103/4994-0

Fax: 02103/32360

e-mail: info@caelo.de

· **Emergency telephone:**

Giftinformationszentrum Mainz

Langenbeckstr. 1, 55131 Mainz

Tel.: 06131/19240

· **Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

· **Application of the substance / mixture:**

Ingredient for pharmaceutical drugs or active pharmaceutical ingredient.

2 Hazards identification

· **GHS-Labeling Elements:**



· **Signal word:** Warning

· **H-Phrases:**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· **P-Phrases:**

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking

P233 keep Container tightly closed.


P305 IF IN EYES:

P351 Rinse cautiously with water for several minutes.

Flam. Liq. 2

Eye Irrit. 2

STOT SE 3

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3 Composition / information on ingredients

• **Chemical characterization:**

CAS-No. Substance name

67-63-0 Isopropanol

• **EINECS-No.:** 200-661-7

• **Index-No.:** 603-003-00-0

• **REACH Reg. No.:** 01-2119457558-25-0000

• **INCI-Name:** Isopropyl Alcohol

4 First aid measures


- **after inhalation:** Fresh air, if feeling unwell continuously: Seek medical advice.
- **after skin contact:** Take off contaminated clothes and shoes, wash immediately with plenty of water and soap. If irritation continues seek medical advice immediately.
- **after eye contact:** Rinse out with plenty of water with the eyelid wide open.
- **after swallowing:** Seek medical advice. Do not induce vomiting (Danger of aspiration). Drink water, no milk or fatty oils.
- **Medical advice:** Enduring or repeated exposition can cause dermatitis. Treatment with fatty crèmes. After swallowing and vomiting aspiration into lung is possible, which can cause chemical pneumonia or asphyxia. Give activated coal, in order to reduce resorption in gastrointestinal tract. Gastrolavage only under endotracheal intubation, because of danger of aspiration. Causes depression of central nervous system.
- **The following symptoms might occur:** Headache, vertigo, illness, unconsciousness, dry skin. Swallowing can cause drunkenness and unconsciousness. Irritant effect on skin, eyes and respiratory organs.

5 Fire-fighting measures

- **Suitable extinguishing media:** All regular extinguishing media can be used. Select fire fighting measures suitable to surrounding environment.
- **Specific hazards during fire fighting:** Combustible. Vapours are heavier / denser than air and spread on floor. Ignition possible even in greater distance. In case of fire carbon monoxide can be released.
- **Special protective equipment for fire-fighters:** Full body protection and full respiratory protection.
- **Additional information:** Cool endangered containers with water. German classification: Brandklasse B (Combustible liquid substances).

6 Accidental release measures

- **Personal protective measures:** Good ventilation of working place. Do not inhale vapours. Avoid contact with substance. Extinguish open flames. Keep away from ignition sources. Do not smoke. Protection equipment: Protection gloves of PVC, neoprene or nitrile rubber, PVC-overall with head protection, boots of rubber and full mask with filter for organic vapours.
- **Environmental protective measures:** Prevent substance from entering into drainage ditch, surface waters, ground water and flowing waters.
- **Methods for cleaning:** Absorb with liquid-binding material: Sand, silica gel, acid binder, universal binder, saw dust. Transfer into a tightly closing, labelled container. Disposal according to Chapter 13 of this MSDS. Put leaking containers into a labelled rescue container. Clean up with water.

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• **General information:** Explosion hazard. Inform fire brigade and water protection authorities, if product is leaking into drainage. Explosive mixtures of vapour with air can be formed..

7 Handling and storage

• **Handling:**

• **Advice on safe handling:** Avoid contact with substance. Extinguish open flames. Keep away from ignition sources. Do not smoke.

Good ventilation / exhaustion of working place, even near the floor. (Vapours are heavier 7 denser than air). Prevent from entering into drainage.

• **Informations to fire or explosion protection:**

Keep away from ignition sources. Do not smoke.

Take measures to prevent electrostatic charging.

Temperatur class (DIN 57165): T2

Explosion group (DIN 57165): II A

• **Storage:**

• **Requirements for storage areas and containers:** Store at a cool and well-ventilated place, containers tightly closed. Prevent from direct sunlight and other heat or ignition sources. Suitable material for containers: Unalloyed steel or stainless steel. Suitable material for inner coverage: zinc silicate. Not suitable material for containers and inner coverage: Aluminium, neoprene rubber (at temperatures > 50°C), most plastics.

• **Advices on common storage:** Keep away from oxidants, self igniting substances and highly flammable solids.

• **Additional informations to storage conditions:** Keep container tightly closed. Take measures to prevent electrostatic charging. Provide earthing for all used equipment. Do not use compressed air for filling, unloading or handling.

8 Exposure controls / personal protective equipment

Components with limit values that require monitoring at the workplace:

67-63-0 Isopropanol: AGW: 500 mg/cbm or 200 ppm (TRGS900)

• **General information:** pregnancy group: C.

• **Personal protective equipment:**

• **General protective and hygiene measures:**

Wash hands before breaks and after work.

Do not inhale vapours.

Avoid contact with eyes and skin.

• **Respiratory protection:**

Respiratory filter required. Up to 0,5 Vol.% filter A2 (Colour brown), up to 1,0 Vol.% filter A3, more than 1,0 Vol.% independent respiratory equipment.

• **Hand protection:** Protection gloves of PVC.

• **Eye protection:** Safety glasses.


• **Body protection:** Solvent proof shoes and protection clothing.

9 Physical and chemical properties

• **Form:** liquid

• **Colour:** colourless

• **Odour:** alcoholic

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- **Melting point / melting range:** -89,5 °C
- **Boiling point / boiling range:** 82 °C
- **Flash point:** 12 °C
- **Ignition temperature:** 425 °C
- **Explosion hazard:** The product is not explosive, but explosive mixtures of vapour with air can be formed.
- **Explosion limits:**
 - **lower:** 2 Vol %
 - **upper:** 12 Vol %
- **Vapour pressure:** 20 °C: 4200 Pa, 25 °C: 6020 Pa
- **Density:** (20 °C) 0,785 g/cm³
- **Solubility in / Miscibility with**
- **Water:** Completely miscible.
- **pH-range:** neutral
- **Viscosity:**
 - **dynamic:** (20 °C) 2,43 mPas
- **refractory index:** (20 °C) 1,376 – 1,378

10 Stability and reactivity


- **Thermal decomposition / conditions to avoid:** No decomposition during appropriate use. Under normal pressure the product can be distilled without decomposition.
- **Hazardous reactions:** Reactions with oxidants and strong acids.
- **Hazardous decomposition products:** none.

11 Toxicological information

- **Acute toxicity:**
- LD/LD50-data relevant for hazard classification:**
67-63-0 Isopropanol
Oral: LD50: 4570 mg/kg (rat)
Dermal: LD50: 13400 mg/kg (rab)
Inhalativ: LC50/4 h: 30 mg/l (rat)
- **Primary irritant effect:**
 - **on skin:** Local irritation of skin possible (slightly irritant).
 - **on eyes:** Irritant.
 - **on respiratory organs:** Slightly irritant.
- **Sensitization:** Can have a sensitizing effect.
- **Sub-acute / chronic toxicity:** repeated exposition can cause neuronal damage. These effects were observed only at high dosage. Mutagenitiy: Not mutagen.
- **Additional toxicological informations:** High concentrations can cause fatigue, vertigo or unconsciousness. Vapours and liquid can cause eye irritations.

12 Ecological information

- **Aquatic toxicity:**
Fish: Leuciscus idus LC50 > 100 mg/l/48h
Daphnia: Daphnia magna EC50 > 100 mg/l/48h
Alges: Scenedesmus subspicatus EC50 > 100 mg/l/72h

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• **Information about elimination (persistence and degradability):**

Readily biodegradable. Rapid photochemical oxidation in air.

• **Behaviour in environmental systems:**

• **Log pOW:** < 3

• **Mobility and bioaccumulation potential:** Soluble in water. Disappears within one day by evaporation and dissolution. No substantial bioaccumulation. If big quantities are released, the product can penetrate into soil and have harmful effect on ground water.

• **Behaviour in sewage plants:** EC50: > 1000 mg/l.

• **Water hazard class:** 1 (VwVwS): slightly hazardous for water.

• **General advices:** Prevent from entering sewage water or drainage ditch undiluted or unneutralized. May cause lack of oxygen in environmental waters.

13 Disposal considerations

• **Product:**

• **Recommendation:** Disposal according to local regulations as pharmaceutical waste or solvent waste.

• **Empty contaminated packaging:**

• **Recommendation:** Disposal according to the local regulations. Empty container completely and let evaporate residues in a safe place. Warning: Residues can be a source of explosion hazard.

14 Transport informations

• **Land transport according to ADR:**

• **Proper shipping name:** Isopropanol (Isopropyl alcohol)

• **Class:** 3

• **UN-number:** 1219

• **Packing group:** II

• **Classification code:** F1

• **Limited quantities (Table 3.4.6. ADR):** 1 Liter

• **Hazard classification number:** 33

• **Special provisions (Chapter 3.3 ADR):** -

• **Additional informations for sea transport IMDG:**

• **EMS-No.:** F-E, S-D

• **Properties:** Fp=12°C

15 Regulatory information

• **Labelling according to actual legislation (GHS, Globally Harmonized System of Classification and Labelling of Chemicals):**

The product is classified and labelled according to GHS-regulations.

• **Hazard symbols:** GHS02, GHS07

• **Signal word:** Warning

• **H-Phrases:**


H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

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• **P-Phrases:**

P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking

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P233 keep Container tightly closed.

P305 IF IN EYES:

P351 Rinse cautiously with water for several minutes.

- **National regulations (Germany):**
- **Water hazard class:** see chapter 12
- **Storage class TRGS 510:** 3
- **VbF class:** B

16 Other Information

The information provided in this MSDS is correct to the best of our knowledge at the date of edition.

- **Reason for last revision:** Adjustment to regulation (EC) 1907/2006 (REACH) and GHS-labelling system.