

Safety Data Sheet

according to Regulation (EC) No 1907/2006

iso-Pentanol (Isoamyl alcohol), 1 l

Print date: 15.04.2015

Product code: 9992050

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

iso-Pentanol (Isoamyl alcohol), 1 l

CAS No: 123-51-3
Index No: 603-006-00-7
EC No: 204-633-5

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

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet**Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH
Street: Im Forstgarten 1
Place: D-66459 Kirkel
Internet: www.conatex.com

Supplier

Company name: Carbolution Chemicals GmbH
Street: Im Stadtwald, Gebäude A1.2
Place: D-66123 Saarbrücken
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232
e-mail: michael.bauer@carbolution-chemicals.de
Internet: www.carbolution-chemicals.de

1.4. Emergency telephone number: +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: Xn - Harmful, Xi - Irritant
R phrases:
Flammable.
Harmful by inhalation.
Irritating to respiratory system.
Repeated exposure may cause skin dryness or cracking.

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

Hazard categories:
Flammable liquid: Flam. Liq. 3
Acute toxicity: Acute Tox. 4
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Flammable liquid and vapour.
Harmful if inhaled.
May cause respiratory irritation.

2.2. Label elements**Hazardous components which must be listed on the label**

pentanol isomers, with the exception of those specified elsewhere in this Annex

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Signal word:

Warning

Pictograms:

GHS02-GHS07



Hazard statements

H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C₅H₁₂O

Molecular weight: 88,15

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]	
250-378-8	pentanol isomers, with the exception fo those specified elsewhere in this Annex	100 %
-	Xn - Harmful, Xi - Irritant R10-20-37-66	
603-006-00-7	Flam. Liq. 3, Acute Tox. 4, STOT SE 3; H226 H332 H335 EUH066	

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing mediaWater spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.**5.2. Special hazards arising from the substance or mixture**

Combustible. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Material, oxygen-rich, oxidizing. Pyrophoric or self-heating substances.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN):

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DIN EN 166

Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	No data available

Test method

pH-Value (at 20 °C):	5,6 25 g/l
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Changes in the physical state

Melting point:	-117 °C
Initial boiling point and boiling range:	130 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	43 °C

Flammability

Solid:	No data available
Gas:	No data available

Lower explosion limits:	1,2 vol. %
Upper explosion limits:	9 vol. %
Ignition temperature:	No data available

Auto-ignition temperature

Solid:	No data available
Gas:	No data available

Vapour pressure: (at 20 °C)	3 hPa
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Vapour pressure: (at 50 °C)	23,6 hPa
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Density (at 25 °C):	0,809 g/cm ³
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Water solubility:	No data available
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Partition coefficient:	1,28
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Viscosity / dynamic:	No data available
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Viscosity / kinematic:	No data available
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Flow time:	No data available
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Vapour density:	3,04
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Evaporation rate:	No data available
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Solvent separation test:	No data available
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Solvent content:

No data available

9.2. Other information

Solid content:

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Ignition hazard. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

Acute inhalation toxicity.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
-	pentanol isomers, with the exception for those specified elsewhere in this Annex				
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

Irritation and corrosivity

Irritation to respiratory tract, Lung irritation, Cough, Dyspnoea.

Sensitising effects

No data available

Severe effects after repeated or prolonged exposure

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

Specific effects in experiment on an animal

No data available

Additional information on tests

This mixture is classified as hazardous according to 1999/45/EC.

Practical experience

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Observations relevant to classification

No data available

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

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

<u>14.1. UN number:</u>	UN 1105
<u>14.2. UN proper shipping name:</u>	PENTANOLS
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	III

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Hazard label: 3
 Classification code: F1
 Limited quantity: 5 L
 Transport category: 3
 Hazard No: 30
 Tunnel restriction code: D/E

Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number: UN 1105
14.2. UN proper shipping name: PENTANOLS
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3
 Classification code: F1
 Limited quantity: 5 L

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number: UN 1105
14.2. UN proper shipping name: PENTANOLS
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3
 Special Provisions: 223
 Limited quantity: 5 L
 EmS: F-E, S-D

Other applicable information (marine transport)

E1

Air transport (ICAO)

14.1. UN number: UN 1105
14.2. UN proper shipping name: PENTANOLS
14.3. Transport hazard class(es): 3
14.4. Packing group: III
 Hazard label: 3
 Special Provisions: A3
 Limited quantity Passenger: 10 L
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

Other applicable information (air transport)

E1

: Y344

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

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

National regulatory information

Water contaminating class (D): 3 - highly water contaminating

SECTION 16: Other information**Relevant R-phrases (Number and full text)**

- | | |
|----|---|
| 10 | Flammable. |
| 20 | Harmful by inhalation. |
| 37 | Irritating to respiratory system. |
| 66 | Repeated exposure may cause skin dryness or cracking. |

Relevant H- and EUH-phrases (Number and full text)

- | | |
|--------|---|
| H226 | Flammable liquid and vapour. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |