



Safety Data Sheet According to Regulation (EU) 830/2015

1089 Isobutanol

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

1.1 Product identifier

Name:

Isobutanol

Synonym:

2-Methyl-1-Propanol, iso-Butanol, Isobutyl Alcohol, iso-Butyl Alcohol

REACH Registration Number: 01-2119484609-23-XXXX

1.2 Relevant identified uses of the substance or mixture:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)

2. Identification of dangers

2.1 Classification of the substance or the mixture.

Flam. Liq. 3

STOT SE 3

Skin Irrit. 2

Eye Dam. 1

STOT SE 3

2.2 Label elements:

Hazard Pictograms



Signal word

Hazard statements

H226 Flammable liquid and vapour.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.

2.3 Other hazards:

No further relevant information available.

3. Composition/information on ingredients

3.1 Substances

Name: Isobutanol

Formula: $(\text{CH}_3)_2\text{CHCH}_2\text{OH}$ M.= 74,12 CAS [78-83-1]

EC number (EINECS): 201-148-0

EC index number: 603-108-00-1

REACH Registration Number: 01-2119484609-23-XXXX

3.2 Mixtures

4. First aid measures

4.1 Description of first aid measures

Never provide drink or induce vomiting in the event of loss of consciousness.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Swallowing:

Drink large amounts of water. Do not induce vomiting. Call for medical help.
Stomach lavage.

Inhaling:

Take the person out into the fresh air. In the event of suffocation, proceed to provide artificial respiration.

Contact with the skin:

Wash with plenty of water. Remove contaminated clothing.

Eyes:

Wash with plenty of water, keeping eyelids open. Seek medical assistance.

5. Firefighting measures

5.1 Extinguishing media:

Carbon dioxide (CO₂). Alcohol resistant foam. Dry powder.

5.2 Special hazards arising from the substance or mixture:

Flammable. Keep away from sources of ignition. The fumes are heavier than air, so they may spread at floor level. Auf Rückzündung achten In the event of fire, toxic fumes may form.

5.3 Advice for firefighters:

Suitable clothing and footwear.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Do not inhale the fumes. Ensure adequate ventilation.

6.2 Environmental precautions:

Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up:

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

6.4 Reference to other sections

Not applicable

7. Handling and storage

7.1 Precautions for safe handling:

No special indications.

7.2 Conditions for safe storage, including any incompatibilities:

Well sealed containers. In well ventilated premises. Away from sources of ignition and heat.

Recommended storage temperature: Room temperature.

7.3 Specific end use(s)

No more relevant data available

8. Exposure controls/personal protection

8.1 Control parameters:

VLA-ED: 50 ppm = 154 mg/m³

8.2 Exposure controls

Ensure good ventilation and renewal of the air in the premises.

Respiratory protection:

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter A. Filter P.

Hand protection:

Use suitable gloves

Eye/face protection:

Use safety glasses.

Individual hygiene measures:

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done.

Environmental exposure controls:

Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Characteristic.

pH:

N/A

Melting point/freezing point: -108 °C

Initial boiling point and boiling range: 108 °C

Flash point: 29 °C

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits: 10,7 %(V) / 1,7 %(V)

Vapour pressure: 12 hPa (20 °C)

Vapour density: N/A

Relative density: (20/4) 0,803 g/ml

Solubility: 95 g/l in water (20 °C)

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature: 430 °C

Decomposition temperature: N/A

Kinematic viscosity: N/A
Dynamic viscosity: 6,68 mPa.s (20 °C)

9.2 Other information

No more relevant data available

10. Stability and reactivity

10.1 Reactivity

No specific data.

10.2 Chemical stability:

The gases/fumes can form explosive mixtures with the air.

10.3 Possibility of hazardous reactions

No specific data.

10.4 Conditions to avoid:

The product is chemically stable under standar ambient conditions (room temperature).

10.5 Incompatible materials:

Alkaline metals. Alkali-earth metals. Aluminium. Strong oxidant agents.

10.6 Hazardous decomposition products:

No specific data.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD L0 oral rbt : 3.750 mg/kg

LD50 oral rat : 2.460 mg/kg

LD50 skn rbt : 3.400 mg/kg

LC L0 inh rat : 8000 ppm 4h

Dangerous effects for health:

If fumes inhaled: Irritations to the respiratory tracts. Upon contact with the skin: irritations Through contact with the eyes: Irritations to the mucosae sight disorders Due to absorption: May cause: nausea headaches vertigo intoxication loss of consciousness narcosis If swallowed in large quantities: respiratory paralysis coma

12. Environmental information

12.1 Toxicity:

- EC50 test (mg/l):

Bacteria (Ps. putida) EC0 280 mg/l

Classification: Very toxic

Algae (Sc. quadricauda) EC0 350 mg/l

Classification: Very toxic

Crustaceans (Daphnia magna) 1220 mg/l

Classification:

Very toxic

- Receptor medium:

Risk for the water environment

Low

Risk for the land environment

Low

- Observations:

Low ecotoxicity due to its good degradability. Its acute ecotoxic effect depends on the dumping concentration and on the dilution effect.

12.2 Persistence and Degradability :

- Test:

- Biotic degradation classification:

BOD5/COD

Biodegradability

High, over 1/3

- Abiotic degradation depending on pH:

- Observations:

Easily biodegradable product.

12.3 Bioaccumulative potential:

- Test:

- Bioaccumulation:

Risk

- Observations:

Non-bioaccumulable product.

12.4 Mobility in soil :

Data not available.

12.5 Assessment PBT and MPMB :

Data not available.

12.6 Other adverse effects:

If suitable handling conditions are maintained, no ecological problems are to be anticipated.

13. Disposal considerations

13.1 Waste treatment methods:

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

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Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

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14. Transport information

14.1 UN number

UN1212

14.2 UN proper shipping name

ISOBUTANOL (ISOBUTYL ALCOHOL)

14.3 Transport hazard class(es)

3

14.4 Packing group

ADR/IMDG: III

IATA: III

14.5 Environmental hazards

14.6 Special precautions for user

Not applicable

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

Not applicable

15. Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

Not applicable

16. Other information

Other precautionary statements

P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash...thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, protective clothing, eye protection or face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see on this label).
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P370+P378 In case of fire: Use for extinction.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

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In respect of the previous review, changes have been made to the following sections: 1,2,4,5,6,7,8,9,10,11,13,14,15

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.