

# ISOBUTANOL

0113  
April 2005

**CAS No: 78-83-1**  
RTECS No: NP9625000  
UN No: 1212  
EC No: 603-108-00-1

2-Methyl-1-propanol  
Isopropyl carbinol  
Isobutyl alcohol  
 $C_4H_{10}O$  /  $(CH_3)_2CHCH_2OH$   
Molecular mass: 74.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, water spray, foam, carbon dioxide.
<b>EXPLOSION</b>	Above 28/C explosive vapour/air mixtures may be formed.	Above 28/C use a closed system, ventilation, and explosion-proof electrical equipment.	In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE			
<b>Inhalation</b>	Headache. Dizziness. Drowsiness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest.
<b>Skin</b>	Redness. Pain. Dry skin.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
<b>Eyes</b>	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Drowsiness. Dizziness. Nausea. Diarrhoea. Vomiting	Do not eat, drink, or smoke during work.	Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Personal protection: filter respirator for organic gases and vapours. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Wash away remainder with plenty of water.	Xi Symbol R: 10-37/38-41-67 S: (2-)7/9-13-26-37/39-46 UN Hazard Class: 3 UN Pack Group: III

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30GF1-III NFPA Code: H1; F3; R0	Fireproof. Separated from strong oxidants, aluminium.

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

**Chemical dangers**

Reacts with aluminium, strong oxidants, such as chromium trioxide forming flammable/explosive gas (hydrogen - see ICSC0001). Attacks some forms of plastic, rubber and coatings.

**Occupational exposure limits**

TLV: 50 ppm as TWA; (ACGIH 2005).  
MAK: 100 ppm, 310 mg/m<sup>3</sup>; Peak limitation category: I(1);  
Pregnancy risk group: C; (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its vapour and by ingestion.

**Inhalation risk**

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20/C.

**Effects of short-term exposure**

The substance is irritating to the skin and is severely irritating to the eyes. Exposure far above the OEL could cause lowering of consciousness. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

**Effects of long-term or repeated exposure**

The liquid defats the skin.

### PHYSICAL PROPERTIES

Boiling point: 108/C  
Melting point: -108/C  
Relative density (water = 1): 0.80  
Solubility in water, g/100 ml at 20/C: 8.7  
Vapour pressure, kPa at 20/C: 1.2  
Relative vapour density (air = 1): 2.55

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.02  
Flash point: 28/C c.c.  
Auto-ignition temperature: 415/C  
Explosive limits, vol% in air: 1.7-10.9  
Octanol/water partition coefficient as log Pow: 0.8

### ENVIRONMENTAL DATA

### NOTES

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible