

ISOPENTANE1153
April 1994

CAS No: 78-78-4
 RTECS No: EK4430000
 UN No: 1265
 EC No: 601-006-00-1

Ethyl dimethyl methane
 2-Methylbutane
 Isoamyl hydride
 $C_5H_{12} / (CH_3)_2-CH-CH_2-CH_3$
 Molecular mass: 72.2

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Extremely flammable.	NO open flames, NO sparks, and NO smoking.	Powder, AFFF, foam, carbon dioxide.
EXPLOSION	Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Prevent build-up of electrostatic charges (e.g., by grounding). Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.

EXPOSURE			
Inhalation	Cough. Dizziness. Drowsiness. Headache. Shortness of breath. Sore throat. Irregular heartbeat.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
Skin	Dry skin. Redness.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Safety spectacles or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Nausea. Vomiting. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Personal protection: filter respirator for organic gases and vapours.	F Symbol Xn Symbol N Symbol R: 12-51/53-65-66-67 S: (2-)9-16-29-33-61-62 UN Hazard Class: 3 UN Pack Group: I

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30S1265 or 30GF1-I+II NFPA Code: H 1; F 4; R 0	Fireproof. Well closed.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers

The vapour is heavier than air and may travel along the ground; distant ignition possible. As a result of flow, agitation, etc., electrostatic charges can be generated.

Chemical dangers

May explode on heating.

Occupational exposure limits

TLV: 600 ppm as TWA; (ACGIH 2004).
MAK: 1000 ppm, 3000 mg/m³; Peak limitation category: II(2);
Pregnancy risk group: D; (DFG 2004).

Routes of exposure

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

Inhalation risk

No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20/C.

Effects of short-term exposure

The substance is irritating to the eyes, the skin and the respiratory tract. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis. The substance may cause effects on the central nervous system and heart, resulting in impaired functions.

Effects of long-term or repeated exposure

The liquid defats the skin.

PHYSICAL PROPERTIES

Boiling point: 28/C
Melting point: -160/C
Relative density (water = 1): 0.6
Solubility in water: none
Vapour pressure, kPa at 20/C: 79
Relative vapour density (air = 1): 2.5

Relative density of the vapour/air-mixture at 20/C (air = 1): 2.2
Flash point: <-51/C c.c.
Auto-ignition temperature: 420/C
Explosive limits, vol% in air: 1.4-7.6
Octanol/water partition coefficient as log Pow: 2.3

ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

NOTES

Use of alcoholic beverages enhances the harmful effect.
High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death.
Check oxygen content before entering area.
The relation between odour and the occupational exposure limit cannot be indicated.
Card has been partly updated in April 2005. See sections Occupational Exposure Limits, EU classification, Emergency Response.

ADDITIONAL INFORMATION

LEGAL NOTICE

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