1-PROPANOL

0553
October 1999

CAS No: 71-23-8
RTECS No: UH8225000
UN No: 1274
EC No: 603-003-00-0

Propyl alcohol
Propan-1-ol
C_3H_8O / $CH_3CH_2CH_2OH$
Molecular mass: 60.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking. NO contact with oxidants.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
EXPLOSION	Vapour/air mixtures explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
EXPOSURE			
Inhalation	Ataxia. Confusion. Dizziness. Drowsiness. Headache. Nausea. Weakness.	Ventilation, local exhaust, or breathing protection.	Fresh air, rest.
Skin	Dry skin.	Protective gloves.	Rinse and the wash skin with water and soap.
Eyes	Redness. Pain. Blurred vision.	Safety goggles.	First rinse with plenty of water for several mintures (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Sore throat. Vomiting. (See Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Ventilation. Remove all ignition sources. 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.	**EU classification** F Symbol Xi Symbol R: 11-41-67 S: (2-)7-16-24-26-39 Note: 6 **UN classification** UN Hazard Class: 3 UN Pack Group: II

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30S1274 NFPA Code: H 1; F 3; R 0	Fireproof. Separated from strong oxidants. Cool. Well closed. Keep in a well-ventilated room.

IPCS
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

SEE IMPORTANT INFORMATION ON THE BACK.

IMPORTANT DATA

Physical State; Appearance
CLEAR COLOURLESS LIQUID, WITH CHARACTERISTIC ODOUR.

Physical dangers
The vapour mixes well with air, explosive mixtures are easily formed.

Chemical dangers
Reacts with strong oxidants causing fire and explosion hazard. Attacks some forms of plastic and rubber.

Occupational exposure limits
TLV: 200 ppm as TWA, 400 ppm as STEL; A3 (confirmed animal carcinogen with unknown relevance to humans); Intended change (ACGIH 2005).
MAK not established.

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; on spraying or dispersing, however, much faster.

Effects of short-term exposure
The substance irritates the eyes. The substance may cause effects on the central nervous system. Exposure at high levels may result in unconsciousness.

Effects of long-term or repeated exposure
The liquid defats the skin.

PHYSICAL PROPERTIES

Boiling point: 97/C
Melting point: -127/C
Relative density (water = 1): 0.8
Solubility in water: miscible
Vapour pressure, kPa at 20/C: 2.0
Relative vapour density (air=1): 2.1
Relative density of the vapour/air-mixture at 20/C (air=1): 1.02
Flash point: 15/C c.c.
Auto-ignition temperature: 371/C
Explosive limits, vol% in air: 2.1-13.5
Octanol/water partition coefficient as log Pow: 0.25

ENVIRONMENTAL DATA

NOTES

Use of alcoholic beverages enhances the harmful effect.
Card has been partly updated in October 2004. See sections Occupational Exposure Limits, EU classification, Emergency Response.
Card has been partially updated in August 2007: see Occupational Exposure Limits.

ADDITIONAL INFORMATION