

2-NITROPROPANE

0187
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UN No: 2608

EC No: 609-002-00-1

Isonitropropane

Dimethylnitromethane

sec-Nitropropane

2-NP

$C_3H_7NO_2$ / $CH_3CHNO_2CH_3$

Molecular mass: 89.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Flammable. Many reactions may cause fire or explosion. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
EXPLOSION	Above 24/C explosive vapour/air mixtures may be formed.	Above 24/C use a closed system, ventilation, and explosion-proof electrical equipment.	In case of fire: keep drums, etc., cool by spraying with water. Combat fire from a sheltered position.

EXPOSURE		AVOID ALL CONTACT!	
Inhalation	Cough. Dizziness. Drowsiness. Headache. Nausea. Vomiting. Diarrhoea. Weakness. Shortness of breath.	Ventilation, local exhaust, or breathing protection.	Refer for medical attention.
Skin	Dry skin. Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eyes	Redness. Pain.	Face shield 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	(Further see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Remove all ignition sources. Evacuate danger area in case of a large spillage! Consult an expert! Personal protection: self-contained breathing apparatus. 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 T Symbol R: 45-10-20/22 S: 53-45 Note: E UN classification UN Hazard Class: 3 UN Pack Group: III GHS classification Signal: Danger Excl mark-Health haz Harmful if swallowed Harmful if inhaled vapour Suspected of causing genetic defects May cause cancer Causes damage to liver

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-30GF1-III NFPA Code: H1; F3; R2	Fireproof. Separated from strong bases, strong acids, amines, powdered metals, food and feedstuffs.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS, OILY LIQUID.

Chemical dangers

The substance decomposes on burning producing toxic fumes including nitrogen oxides. Shock-sensitive compounds are formed with acids, amines, inorganic bases and heavy metal oxides. Attacks some forms of plastic rubber and coatings.

Occupational exposure limits

TLV: 10 ppm; A3 (confirmed animal carcinogen with unknown relevance to humans); (ACGIH 2005).

MAK: skin absorption (H); Carcinogen category: 2 (DFG 2005).

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 can be reached rather quickly on evaporation of this substance at 20/C.

Effects of short-term exposure

The vapour of this substance is irritating to the eyes and the respiratory tract. The substance is mildly irritating to the skin. The substance may cause effects on the central nervous system. Exposure far above the OEL could cause liver impairment. Exposure far above the OEL may result in death.

Effects of long-term or repeated exposure

The liquid defats the skin. This substance is possibly carcinogenic to humans.

PHYSICAL PROPERTIES

Boiling point: 120/C

Melting point: -91/C

Relative density (water = 1): 0.99

Solubility in water, g/100 ml at 25/C: 1.7

Vapour pressure, kPa at 20/C: 1.7

Relative vapour density (air = 1): 3.1

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.04

Flash point: 24/C c.c.

Auto-ignition temperature: 428/C

Explosive limits, vol% in air: 2.6-11

Octanol/water partition coefficient as log Pow: 0.93

ENVIRONMENTAL DATA

NOTES

Depending on the degree of exposure, periodic medical examination is suggested.

The odour warning when the exposure limit value is exceeded is insufficient.

NiPar S-20 and NiPar S-30 are trade names.

Do NOT take working clothes home.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information