

ISOAMYL NITRITE

1012

November 1998

CAS No: 110-46-3
RTECS No: NT0187500
UN No: 1113
EC No:

Amyl nitrite
 Nitrous acid, 3-methyl butyl ester
 3-Methylbutanol nitrite
 Isopentyl alcohol nitrite
 $C_5H_{11}NO_2$
 Molecular mass: 117.2

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Highly flammable. Many reactions may cause fire or explosion. Heating will cause rise in pressure with risk of bursting.	NO open flames, NO sparks, and NO smoking.	Water spray, alcohol-resistant foam.
EXPLOSION	Vapour/air mixtures are 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. Combat fire from a sheltered position.

EXPOSURE		PREVENT GENERATION OF MISTS! STRICT HYGIENE!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	Blue lips or finger nails. Blue skin. Confusion. Convulsions. Dizziness. Headache. Sweating. Nausea. Unconsciousness. Vomiting. Flushing of the face. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Artificial respiration if indicated. Refer for medical attention.
Skin	MAY BE ABSORBED!	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes		Safety spectacles, 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	(see Inhalation).	Do not eat, drink, or smoke during work. Wash hands before eating.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Evacuate danger area! Consult an expert! Ventilation. Remove all ignition sources. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer. Chemical protection suit including self-contained breathing apparatus.	Symbol R: S: UN Hazard Class: 3 UN Pack Group: II Airtight. Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-30G30 NFPA Code: H1; F; R2;	Fireproof. Separated from strong oxidants. Cool. Well closed.



IMPORTANT DATA

Physical State; Appearance

YELLOW LIQUID, WITH CHARACTERISTIC ODOUR.

Physical Dangers

The vapour is heavier than air and may travel along the ground; distant ignition possible.

Chemical Dangers

May explode on heating. The substance decomposes on burning producing toxic gases including nitrogen oxides. Reacts with oxidants causing fire and explosion hazard.

Occupational Exposure Limits

TLV not established.

Routes of Exposure

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

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 substance may cause effects on the blood and cardiovascular system, resulting in cardiac disorders and formation of methaemoglobin. The effects may be delayed. Medical observation is indicated.

PHYSICAL PROPERTIES

Boiling point: 97-99°C

Relative density (water = 1): 0.875

Solubility in water: none

Vapour pressure, kPa at 20°C: 3.5

Relative vapour density (air = 1): 4.0

Relative density of the vapour/air-mixture at 20°C (air = 1): 1.1

Flash point: 3°C

Auto-ignition temperature: 209°C

ENVIRONMENTAL DATA

NOTES

Combustion in a confined space may turn into detonation. Depending on the degree of exposure, periodic medical examination is indicated. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.

ADDITIONAL INFORMATION

LEGAL NOTICE

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