

Mallinckrodt

Material Safety Data

Emergency Phone Number: 314-982-5000

Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Mallinckrodt makes no representations, or warranties, either express or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Mallinckrodt will not be responsible for damages resulting from use of or reliance upon this information.

Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

AMYL ALCOHOL

PRODUCT IDENTIFICATION:

Synonyms: n-amyl alcohol; 1-pentanol; pentyl alcohol; n-butyl carbinol

Formula CAS No.: 71-41-0

Molecular Weight: 88.15

Chemical Formula: $C_5H_{11}OH$

Hazardous Ingredients: Not applicable.

PRECAUTIONARY MEASURES

WARNING! FLAMMABLE LIQUID. HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

Keep away from heat, sparks and flame.

Keep container closed.

Use with adequate ventilation.

Avoid breathing vapor.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

EMERGENCY/FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. In all cases call a physician. SEE SECTION 5.

DOT Hazard Class: Flammable Liquid

SECTION 1 Physical Data

Appearance: Clear, colorless liquid.

Odor: Characteristic odor.

Solubility: 2.7gm/100gm water @ 22°C (71.6°F).

Boiling Point: 134-138°C (273-280°F)

Melting Point: -79°C (-110°F)

Specific Gravity: 0.81

Vapor Density (Air = 1): 3.04

Vapor Pressure (mm Hg): 1 @ 13.6°C (54°F).

Evaporation Rate: (BuAc = 1) 0.18

SECTION 2 Fire and Explosion Information

Fire:

Flammable. Flashpoint 91°F (33°C) closed cup.

Autoignition 572°F (300°C).

Explosive limit in air, % by volume :

lcl : 1.2 ucl : 10 @ 100°C (212°F)

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Fire Extinguishing Media:

Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 3 Reactivity Data

Stability:

Stable at room temperature in sealed containers.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition. Can form aldehydes burning in limited air.

Hazardous Polymerization:

This substance does not polymerize.

Incompatibilities:

Strong oxidizers.

Heat and sources of ignition.

SECTION 4 Leak/Spill Disposal Information

Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Contain and recover liquid when possible. Collect as hazardous waste and atomize in a suitable RCRA approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility. Do not flush to sewer!

Ensure compliance with local, state and federal regulations.

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0

Effective Date: 10-09-85

AMYL ALCOHOL

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:

Inhalation of vapors can irritate the nose, throat, and upper respiratory passages. Higher concentrations have a narcotic effect and may cause headache, nausea, vomiting, dizziness, double vision, shortness of breath, and delirium.

Ingestion:

Moderately toxic by ingestion, can cause headache, nausea, delirium and methemoglobin formation in the blood. Other symptoms may parallel those from inhalation exposure.

Skin Contact:

May cause irritation. Suspected to be a systemic poison by absorption through skin; systemic effects paralleling ingestion may occur.

Eye Contact:

Can be a severe irritant from vapors or liquid.

Chronic Exposure:

Primarily affects the lungs, kidney, and central nervous system.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye problems, or impaired kidney or respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY DATA (RTECS, 1982)

Oral rat LD50 : 2200 mg/kg Skin rabbit LD50 : 4490 mg/kg Irritation skin rabbit: 3200 mg/kg/24H severe.
eye rabbit: 20 mg/24H severe. Mutation reference cited.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

-ACGIH Threshold Limit Value (TLV):
Isoamyl alcohol has a TLV of 100 ppm (TWA),
125 ppm (STEL) which may be used as
a model.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators: (NIOSH Approved)

If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn up to the maximum use concentration specified by the respirator supplier. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 7 Storage and Special Information

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from oxidizing materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment.