

Mallinckrodt

Material Safety Data

Emergency Phone Number: 314-982-5000

CHLOROBENZENE

PRODUCT IDENTIFICATION:

Synonyms: Monochlorobenzene
Formula CAS No.: 108-90-7
Molecular Weight: 112.56
Chemical Formula: C_6H_5Cl
Hazardous Ingredients: Not applicable.

PRECAUTIONARY MEASURES

WARNING: FLAMMABLE! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION.
Avoid breathing vapor.
Keep container closed.
Wash thoroughly after handling.
Avoid contact with eyes, skin and clothing.

EMERGENCY/FIRST AID

If swallowed, get medical attention immediately. 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 skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.
DOT Hazard Class: Flammable Liquid

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SECTION 1 Physical Data

Appearance: Clear, colorless liquid.
Odor: Faint, almond like odor.
Solubility: 0.049 g/100 g water @ 25°C (77°F)
Boiling Point: 132°C (270°F)
Melting Point: -45°C (-49°C)
Specific Gravity: 1.10
Vapor Density (Air=1): (air=1) 3.9
Vapor Pressure (mm Hg): 11.8 @ 25°C (77°F)
Evaporation Rate: (n-BuAc=1): 1.0

SECTION 2 Fire and Explosion Information

Fire:
Flammable liquid.
Flashpoint: 28.9°C (84°F) (closed cup)
Autoignition temperature: 638°C (1180°F)
Flammable limits in air, % by volume:
1:1.3, uel:7.1

Explosion:
Vapors can flow along surfaces to distant ignition source and flash back. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Reactions with incompatibilities may pose an explosion hazard.

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. This highly flammable liquid must be kept from sparks, open flame, hot surfaces, and all sources of heat and ignition.

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SECTION 3 Reactivity Data

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
Emits toxic fumes of hydrogen chloride, phosgene, and carbon monoxide when heated to decomposition.

Hazardous Polymerization:
This substance does not polymerize.
Incompatibilities:
Oxidizing agents, dimethyl sulfoxide, silver perchlorate.

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!

Reportable Quantity (RQ)(CWA/CERCLA): 100 lbs.
Ensure compliance with local, state and federal regulations.

NEPA Ratings: Health: 2 Flammability: 3 Reactivity: 0

SECTION 5 Health Hazard Information

A. EXPOSURE / HEALTH EFFECTS

Inhalation:
Narcotic. May cause irritation to the nose and respiratory tract followed by headache, depression, dizziness, drowsiness, incoordination, and unconsciousness.

Ingestion:
May cause abdominal pain, headache, nausea. May be followed by paleness, cyanosis, and coma, which may be delayed several hours.

Skin Contact:
May cause irritation, redness, and pain.

Eye Contact:
Vapors may cause irritation: splashes may cause severe irritation, redness, and pain to the cornea.

Chronic Exposure:
Prolonged or repeated skin exposure may cause dermatitis or skin burns. Prolonged or repeated exposure through ingestion or inhalation may cause liver, kidney, or lung damage, headache, dizziness, drowsiness, and disturbed digestion.

Aggravation of Pre-existing Conditions:
Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this 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:
Get medical attention immediately. Never give anything by mouth to an unconscious person.

Skin Exposure:
Remove any contaminated clothing. Wash skin with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

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: 2910 mg/kg.

SECTION 6 Occupational Control Measures

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL):

75 ppm

-ACGIH Threshold Limit Value (TLV):

75 ppm

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, in general, up to 100 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less. 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. Outside or detached storage is preferred. Inside storage should be in a standard flammable liquids storage room or cabinet. Separate from oxidizing materials. Storage and use areas should be No Smoking areas. Containers should be bonded and grounded for transfers to avoid static sparks.