Material Safety Data Sheet

City University of Hong Kong

MSDS p-DICHLOROBENZENE 0426

PRODUCT INFORMATION

Chemical name(s): p-DICHLOROBENZENE
Chinese Name: 1,4-二氯苯
Synonyms: 1,4-Dichlorobenzene; para-dichlorobenzene; Paracide; PDCB
CAS No: 106-46-7
Molecular Weight: 147.01
Chemical Formula: C₆H₄Cl₂

RISK SYMBOL

PHYSICAL DATA

Appearance: White crystals.
Boiling Point: 174°C (345°F)
Odor: Moth-ball odor
Melting Point: 53°C (127°F)
Solubility: Practically insoluble in water.
Vapor Density (Air=1): 5.08
Specific Gravity: 1.25 @ 20°C/4°C
Vapor Pressure (mm Hg): 10 @ 54.8°C (131°F)
pH: No information found.
Evaporation Rate (BuAc=1): Not applicable.
% Volatiles by volume @ 21°C (70°F): 100

FIRE AND EXPLOSION DATA

Fire: Flash point: 66°C (151°F) CC Combustible!
Explosion:
Above the flash point, explosive vapor-air mixtures may be formed.
Contact with strong oxidizers may cause fire.

Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

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.

REACTIVITY DATA

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

Hazardous Polymerization: Will not occur.
Incompatibilities: Oxidizing agents, aluminum and its alloys.
Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

HEALTH HAZARD DATA

Emergency Overview
Warning! Harmful if swallowed, inhaled or absorbed through skin. Affects the respiratory system, liver, kidneys, eyes, skin and blood. Causes irritation to skin, eyes and respiratory tract. Combustible. Possible cancer hazard. May cause cancer based on animal data.

Potential Health Effects
Inhalation:
Inhalation of dust or vapors can irritate the nose and throat. May also cause headache, swelling around the eyes and runny nose. Can cause loss of appetite, nausea, vomiting, central nervous system effects, weight loss and liver and kidney damage.

Ingestion: Toxic. Swallowing can produce adverse health effects paralleling inhalation.

Skin Contact:
- Causes skin irritation, with a slight burning sensation. Red blotching of the skin due to allergic reactions may occur. May be absorbed through the skin; symptoms may parallel inhalation.

Eye Contact: Causes irritation, redness, and pain.

Chronic Exposure:
- Chronic exposure may damage blood, lungs, central nervous system, liver and kidneys. P-Dichlorobenzene is a possible carcinogen.

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

FIRST AID MEASURES

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

Ingestion:
- Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

Skin Contact:
- Wash skin with soap or mild detergent and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

Eye Contact:
- Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

PREVENTATIVE MEASURES

Airborne Exposure Limits:
- OSHA Permissible Exposure Limit (PEL): 75 ppm (TWA)
- ACGIH Threshold Limit Value (TLV): 10 ppm (TWA), listed as A3, animal carcinogen.

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 exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge and dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Handling and Storage:
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 of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

ENVIRONMENTAL PROTECTION DATA

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.