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PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

MATERIAL SAFETY DATA SHEETS

Manufacturer: PHARMCO-AAPER
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o-Dichlorobenzene

1. CHEMICAL PRODUCT IDENTIFICATION

Product Name: o-Dichlorobenzene
Synonyms: DCB; 1,2-Dichlorobenzene; ortho-Dichlorobenzene.
Molecular Formula: $C_6H_4Cl_2$
Molecular Weight: 147.00

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS#	Chemical Name	Percent
95-50-1	O-DICHLOROBENZENE	>98

3. HAZARDS IDENTIFICATION

WARNING! COMBUSTIBLE LIQUID. THIS SUBSTANCE HAS CAUSED ADVERSE REPRODUCTIVE AND FETAL EFFECTS IN ANIMALS. MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. HARMFUL IF SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CAUSES DIGESTIVE AND RESPIRATORY TRACT IRRITATION. TARGET ORGANS: KIDNEYS, CENTRAL NERVOUS SYSTEM, AND LIVER.

NFPA Hazard Ratings: Health - 2, Flammability - 2, Reactivity - 0

NOTE: NFPA ratings involve data and interpretations that may vary from company to company. They are intended

only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Potential Health Effects

Eye: Contact produces irritation, tearing, and burning pain. Vapors cause eye irritation.

Skin: Causes irritation with burning pain, itching, and redness.

Ingestion: Harmful if swallowed. May cause central nervous system depression, kidney damage, and liver damage. May cause liver and kidney damage.

Inhalation: May cause respiratory tract irritation. May cause liver and kidney damage. May cause drowsiness, unconsciousness, and central nervous system depression.

Chronic: Prolonged or repeated exposure may cause adverse reproductive effects. May cause liver and kidney damage. May cause fetal effects.

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid.

Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Antidote: No specific antidote exists.

5. FIRE FIGHTING MEASURES

Autoignition Temperature: 1198F (647.78C)

Flash Point: 151F (66.11C)(estimated)

Reactivity: Explosion Limits, Lower: 2.2 Upper: 9.2

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, or foam. Use extinguishing media most appropriate for the surrounding fire. Use carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches, which lead to waterways. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite.

7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with skin and eyes. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

ACGIH: 25 ppm

NIOSH: 150 mg/m³

OSHA - Final PELs: 50 ppm STEL

IDLHC 50 ppm; C 300 mg/m³

OSHA Vacated PELs: O-DICHLOROBENZENE: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: colorless

Odor: aromatic odor

pH: Not available.

Vapor Pressure: 1.15 mm Hg @ 20C

Vapor Density: 5.05 (air=1)

Evaporation Rate:

Viscosity: Not available.

Boiling Point: 356F

Freezing/Melting Point: 1.4F

Decomposition Temperature: Not available.

Solubility: Practically insoluble in water.

Specific Gravity/Density: 1.31 (water=1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: High temperatures, incompatible materials.

Incompatibilities with Other Materials: Oxidizing agents, aluminum.

Hazardous Decomposition Products: Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

11. TOXICOLOGICAL INFORMATION

Oral, mouse: LD50 = 4386 mg/kg;

Oral, rabbit: LD50 = 500 mg/kg;

Oral, rat: LD50 = 500 mg/kg;

Carcinogenicity:

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 3 carcinogen

Epidemiology: No information available.

Teratogenicity: Specific Developmental Abnormalities: Musculoskeletal, inhalation-rat TCLo=200ppm/6H.

Reproductive Effects: Paternal Effects: Spermatogenesis, intraperitoneal-rat

TDLo=50mg/kg.

Neurotoxicity: No information available.

Mutagenicity: No information available.

Other Studies: None.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Environmental Fate: On soil, substance can be adsorbed to a significant extent.

Leaching to groundwater can occur. In water, substance will adsorb to sediment.

In air, substance will exist in the vapor phase and will react with photochemically-produced hydroxyl radicals.

Physical/Chemical: No information available.

Other: Please refer to the Handbook of Environmental Fate and Exposure Data (vol. I) for additional information.

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

RCRA D-Series Maximum Concentration of Contaminants: None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None listed.

RCRA F-Series: None listed.

RCRA P-Series: None listed.

RCRA U-Series: CAS# 95-50-1: waste number U070.

14. TRANSPORT INFORMATION

US DOT IATA RID/ADRIMO Canada TDG

Shipping Name: O-DICHLOROBENZENE

Hazard Class: 6.1/6.1(9.2)

UN Number: UN1591/UN1591

Packing Group:III/III

15. REGULATORY INFORMATION

US FEDERAL

TSCA

CAS# 95-50-1 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

CAS# 95-50-1: Testing required by: manufacturers; processors (40 CFR 799.10

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 95-50-1: final RQ = 100 pounds (45.4 kg)

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 95-50-1: acute, chronic, flammable.

Section 313

This material contains O-DICHLOROBENZENE (CAS# 95-50-1, 98%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act: CAS# 95-50-1 is listed as a Hazardous Substance under the CWA. CAS# 95-50-1 is listed as a Priority Pollutant under the Clean Water Act. CAS# 95-50-1 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

Chemical Name	CAS Number	RQ
<u>o-Dichlorobenzene</u>	95-50-1	100 lb

STATE

CAS# 95-50-1 can be found on the following state right to know lists:

California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

European/International Regulations

European Labeling in Accordance with EC Directives Hazard Symbols: XN N

Risk Phrases: R 36/37/38 Irritating to eyes, respiratory system and skin. R 20 Harmful by inhalation. R 50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Safety Phrases: S 23 Do not inhale gas/fumes/vapour/spray.

WGK (Water Danger/Protection) CAS# 95-50-1: 2

Canada

CAS# 95-50-1 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of B3, D1B, D2B.

CAS# 95-50-1 is not listed on Canada's Ingredient Disclosure List.

16. OTHER INFORMATION

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.