

STANDARD CHLORINE OF DELAWARE, INC.
MATERIAL SAFETY DATA

Housekeeping

STANDARD CHLORINE OF DELAWARE, INC.	PRODUCT NAME	STANDARD CHLORINE OF DELAWARE, INC. GOVERNOR LEA ROAD DELAWARE CITY, DELAWARE 19706
<i>Sediment Blocks</i>	para-DICHLOROBENZENE	Emergency Phone No. (Call Collect) 302-834-4536

A. PRODUCT IDENTITY 807 E
345

Synonyms: 1,4-dichlorobenzene, PDCB, p-dichlorobenzene, para
Chemical Name: Benzene, 1, 4 dichloro; Dichlorobenzene, 1, 4-
Chemical Formula: C₆H₄ Cl₂
Chemical Family: Aromatic Chlorohydrocarbon
CAS No.: 106-46-7
D.O.T. Shipping Name: Molten: Combustible Liquid, n.o.s.
Bags and Drums: Dichlorobenzene, para, solid
D.O.T. Hazard Class/I.D. No.: Molten: Combustible Liquid/NA1993
Bags and Drums: Dichlorobenzene, para, solid/UN1592
D.O.T. Label Requirement(s): Product Label and ORM-A for bags and drums
Reportable Quantity (RQ): 100 lbs. (45.4 kg.)
U.S. Surface Freight Classification: para-Dichlorobenzene

B. HAZARDOUS INGREDIENTS

Material or Component (Common Name(s))	CAS No.	% (wt)
Dichlorobenzene, 1,4- (Para-Dichlorobenzene)	106-46-7	>99.5

C. WARNING STATEMENTS

CAUTION: COMBUSTIBLE.
AVOID INHALATION AND SKIN CONTACT.
USES IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT.
REPEATED EXCESSIVE INHALATION IS HARMFUL: LIVER AND KIDNEY DAMAGE CAN OCCUR.
MAY BE FATAL IF SWALLOWED.

D. PRECAUTIONARY MEASURES

- Avoid contact with eyes, skin and clothing.
- Keep away from heat, sparks, and flames.
- Wear chemical goggles and gloves made of Nitrile or Viton.
- Do NOT wear contact lenses when handling this product.
- Avoid breathing vapors. Handle only in areas with sufficient ventilation to prevent exposure or wear suitable respirator.
- Do NOT eat, drink or smoke in work area.
- Wash thoroughly after handling.
- Keep container closed.
- Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed or disposed of properly. DO NOT CUT OR WELD NEAR CONTAINER.

E. EMERGENCY AND FIRST AID PROCEDURES

IF IN EYES: Flush eyes thoroughly with plenty of water for at least 15 minutes. Forcibly hold eyelids apart during flushing to ensure irrigation of all eye and eyelid tissues. Get prompt medical attention.

IF ON SKIN: Immediately wash affected area with soap and plenty of water for at least 15 minutes. If large areas of the body are contaminated, or if clothing is penetrated, immediately remove clothing and use safety shower. Wash clothing before reuse. If irritation or discomfort develops seek medical attention.

IF INHALED: Remove person to fresh air. If breathing has stopped, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, administer oxygen. Get immediate medical attention.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Give large quantities of water or milk. If spontaneous vomiting occurs, keep airways clear. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Immediately seek medical attention.

NOTE TO PHYSICIANS: Do NOT administer adrenalin for para-Dichlorobenzene overexposures.

F. OCCUPATIONAL CONTROL PROCEDURES

EYE PROTECTION: Wear chemical safety goggles to prevent eye contact. Have eye baths available where eye contact can occur.

SKIN PROTECTION: Wear face shield and full protective clothing, including Viton or Nitrile gloves, apron and impervious boots. Remove contaminated clothing promptly, wash with soap and water and dry before reuse. Provide safety shower at any location where skin contact can occur.

CAUTION: Molten paradichlorobenzene will cause severe burns.

RESPIRATORY PROTECTION: Use NIOSH/MSHA-approved self-contained breathing apparatus for routine work purposes when airborne exposure limits may be exceeded. Consult respirator manufacturer to determine appropriate equipment for given application. See Section L for respiratory protection during spills or leaks.

VENTILATION: Handle only in well ventilated areas. Provide local exhaust ventilation sufficient to keep air concentration levels below airborne permissible exposure limits.

G. FIRE AND EXPLOSION PROTECTION INFORMATION

Flash Point: -150°F (66°C) Method: Tag Closed Cup

Flammable Limits in Air: % by vol • LEL: 2.5 • UEL: not known

J. HEALTH HAZARD DATA

Animal Data:

Oral LC₅₀ (Rats): 1800 mg/kg, slightly toxic
 Dermal LD₅₀ (Rabbit): 5010 mg/kg, practically nontoxic
 Eye Irritation 24-hr. (Rabbit): 13.7 on a scale of 110.0, slightly irritating
 Skin Irritation 24-hr. (Rabbit): 1.0 on a scale of 8.0, slightly irritating

Hazardous Component(s)

Listed as Carcinogen(s) or Potential Carcinogen(s):
 N.T.P.: yes no
 I.A.R.C.: yes no
 OSHA: yes no

K. PHYSICAL DATA (Typical values-not a specification)

Appearance: Solid - White crystals; penetrating "mothball odor".
 Molten - Colorless liquid above 130°F with sharper odor.

Boiling Point: 174°C (345.2°F.)

Melting Point: 53°C (127.4°F.)

Specific Gravity @ 55°/4° C: 1.245-1.250

Solubility in Water @ 25° C, % by wt.: 0.008

Vapor Pressure @ 20° C (mm Hg): 0.6

Hg Vapor Density (Air = 1): 5.1

L. SPILL, LEAK & DISPOSAL INFORMATION

Spill or Leakage Procedures:

For large spill: > 10 gallons; or 100 lbs.

Evacuate area. Eliminate all sources of ignition. Provide and maintain maximum ventilation during clean-up procedures. Personnel in spill area must be equipped with NIOSH/MSHA-approved, self-contained breathing apparatus or full facepiece air-line respirators with auxiliary SCBAs operated in the pressure-demand mode and all eye and skin protection set out in Section F. Product solidifies at 125 F, thus spill may be a mixture of liquid and solid material. Dike area. If possible, pump liquid into metal containers. Carefully shovel or sweep up solid material into closed metal containers. Properly label all containers and store for reprocessing, if possible, or disposal. After all visible traces have been removed, thoroughly vacuum area of spill. If area of spill is porous, remove as much contaminated earth, gravel, etc. as necessary, and place in closed containers for disposal. Runoff to sewers may create health and pollution hazards: Notify health and pollution control authorities promptly.

Small Spills: < 10 gallons or 100 lbs.

Allow to solidify if molten. Wear appropriate protective gear. (See Section F). Scrape and shovel into sealable containers for reclamation or proper disposal.

Waste Disposal:

This product can become a hazardous waste. Standard Chlorine of Delaware recommends material be recovered and/or reprocessed whenever possible. Otherwise, it must be disposed of by burning in an approved incinerator or disposal in an approved hazardous waste management facility. Shipments of waste materials are subject to manifesting requirements per applicable regulations. Care must be taken when using or disposing of this product and its container to prevent environmental contamination. Spilled or discarded product, its container and all clean-up materials must be disposed of in accordance with the Clean Air Act, the Clean Water Act, the

Autoignition Temperature: >1040°F.

Extinguishing Media: Water spray, foam, CO₂, dry chemical or any Class B extinguishing agent.

Special Firefighting Procedures: Highly toxic gases (hydrogen chloride, chlorine and traces of phosgene) can be evolved in fires of this product. Wear full protective clothing and NIOSH/MHSA-approved self-contained breathing apparatus where exposure to vapors or products of combustion is possible. Firefighting equipment must be thoroughly decontaminated after use.

Unusual Fire and Explosion Hazards: Not known

H. REACTIVITY DATA

Stability: Product is stable under ordinary conditions of storage and handling.

Materials to Avoid: Strong oxidizers, oxidizing agents; hot aluminum and aluminum alloys.

Hazardous Decomposition Products: Products of combustion are: Carbon monoxide (CO), carbon dioxide (CO₂), smoke, soot, hydrogen chloride and phosgene.

Hazardous Polymerization: Does not occur.

I. EFFECTS OF OVEREXPOSURE

This section covers effects of overexposure for the primary routes of exposure.

Permissible Airborne Exposure Limits: OSHA PEL: 75 ppm (450 mg/m³)

ACGIH TLV: 75 ppm (450 mg/m³)

ACGIH STEL: 110 ppm (675 mg/m³)

ACUTE EFFECTS:

Inhalation: Inhalation of para-Dichlorobenzene at concentrations in excess of the permissible exposure limits can cause depression of the central nervous system. Effects of such overexposure have been reported to include: headache, dizziness, eye, nose and throat irritation, nausea, feeling of drunkenness, unconsciousness and even death in confined or poorly ventilated area. Cardiac sensitization leading to ventricular fibrillation may occur in some individuals. Para-Dichlorobenzene odor threshold for unacclimated persons varies from 15 to 30 ppm in air. The odor becomes strong at concentrations between 30 and 60 ppm. It is painful to the nose at concentrations of 80 to 160 ppm. Above 160 ppm, irritation becomes intolerable for the unacclimated.

Eyes: Vapor concentrations between 30 and 60 ppm may cause minimal irritation, concentrations between 60 and 80 ppm become painful, above 160 ppm irritation becomes intolerable. Contact of solid particles of para-Dichlorobenzene with the eyes can cause severe irritation and pain.

Skin: Solid paradichlorobenzene has a slightly irritating effect on the skin when held in close contact for excessive periods of time.

Ingestion: Although ingestion is not a likely route of exposure in industrial applications, accidental ingestion of large amounts of para-Dichlorobenzene can cause illness similar to those listed above for inhalation, or death.

CHRONIC EFFECTS:

Various long-term chronic inhalation studies involving several species of experimental animals exposed to vapor concentrations as low as 158 ppm have revealed liver, and to a lesser extent, kidney damage in the exposed animals. Similar liver and kidney effects were noted in oral studies in rats and rabbits. Although such effects of chronic overexposure to para-Dichlorobenzene have not been confirmed in humans, the results of such animal studies are indicative of potential adverse effects in humans, upon long-term inhalation exposure above the permissible exposure limit. Other studies have shown para-Dichlorobenzene to be without teratogenic (birth

Federal Insecticide Fungicide and Rodenticide Act (FIFRA) and the Resource Conservation and Recovery Act (RCRA), as well as any other relevant Federal, State, or Local Laws/Regulations regarding disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

RCRA Hazardous Waste No.: U-072

CWA RQ: 100 lbs.

M. ADDITIONAL INFORMATION:

- This product is a registered pesticide: EPA Reg. No. 1759-7
EPA Est. No. 1813-DE-1
- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- Empty bags must be disposed in a sanitary landfill or by incineration in accordance with Federal, State and Local regulations.
- Drum reuse is limited to the same class of pesticide or to non-pesticide products, providing reuse is in compliance with all applicable government regulations.

ENVIRONMENTAL HAZARD INFORMATION: This product is toxic to fish. Do not discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

For additional information, contact:

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PREPARED BY: Nicholas A. Stufano, Standard Chlorine of Delaware, Inc.

DATE: 11/21/85

REVISED:

SUPERCEDES:

REASON FOR REVISION:

All information, recommendations and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Standard Chlorine of Delaware, Inc. as to the effects of such use, the result obtained, or the safety and toxicity of the product nor does Standard Chlorine of Delaware, Inc. assume any liability arising out of use, by others, of the product referred to herein. The information herein is not to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.