

MATERIAL SAFETY DATA SHEET

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Para-Chem[®], PO Box 127, Simpsonville, SC 29681
24-Hour Emergency Telephone: (864) 967-7691

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: PARABOND[®] M-363
CHEMICAL FAMILY: Seam Sealer

SECTION 2. HAZARDOUS INGREDIENTS AND EXPOSURE LIMITS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by Weight</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Methylene Chloride	75-09-2	56 %	50 ppm	25 ppm

SECTION 3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Skin contact, eye contact, inhalation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Respiratory problems.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Liquid may cause temporary irritation including stinging, tearing, redness, swelling of eyes, with temporary corneal injury. Vapors may irritate eyes.

SKIN CONTACT: Methylene chloride contact is painful and irritating if confined to skin by gloves, clothing, etc. Prolonged or repeated contact may cause irritation, de-fatting of skin, and dermatitis. Absorption of liquid through intact skin is possible if contact with liquid is prolonged.

INGESTION: Single dose toxicity low to moderate. If vomiting occurs, methylene chloride can be aspirated into lungs, which can cause chemical pneumonia and systemic effects.

INHALATION: Major route of exposure. Methylene Chloride depresses the central nervous system. Concentrations between 900-1,000 ppm may cause dizziness. Nausea, headache, and vomiting can occur at concentrations above 2,000 ppm. At 7,000 ppm, numbness and tingling in arms and legs and rapid heartbeat have occurred. Loss of consciousness and death have occurred at levels above 9,000 ppm, if exposure is prolonged.

CHRONIC: The finding of chronic toxic effects in laboratory animals may indicate toxicity to humans. Overexposures to methylene chloride should be avoided; failure to do so could result in injury, illness or even death. Chronic overexposures to methylene chloride have caused liver and kidney toxic effects in experimental animals.

Methylene chloride has been evaluated for possible cancer causing effects in laboratory animals. Inhalation studies at concentrations of 2,000 and 4,000 ppm increased the incidence of malignant liver and lung tumors in mice. Three inhalation studies of rats have shown increased incidence of benign mammary gland tumors in female rats at concentrations of 1,500 ppm and above. Rats exposed to 50 and 200 ppm via inhalation showed no increased incidence of tumors. Mice and rats exposed by ingestion at levels up to 250 mg/kg/day lifetime and hamsters exposed via inhalation to concentrations up to 3,500 ppm lifetime did not show an increased incidence of tumors. The IARC has concluded that there is sufficient evidence for the carcinogenicity of methylene chloride to experimental animals, and inadequate evidence for carcinogenicity of methylene chloride to humans, resulting in a classification as a 2B animal carcinogen. The NTP has identified methylene chloride as an animal carcinogen. Methylene chloride is listed on the IARC and NTP carcinogen lists but not OSHA.

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SECTION 3. HAZARDS IDENTIFICATION (CONT.)

Epidemiology studies of 751 humans chronically exposed to methylene chloride in the work place of which 252 were exposed for a minimum of 20 years did not demonstrate any increase in deaths caused by cancer or cardiac problems. A second study of 2,227 workers confirmed these results.

Reproductive toxicity tests have been conducted to evaluate the adverse effects methylene chloride may have on reproduction and offspring of laboratory animals. The results indicate that methylene chloride does not cause birth defects in laboratory animals.

SECTION 4. FIRST AID MEASURES

EYE CONTACT: Flush with water for 15 minutes. Call physician if irritation occurs.

SKIN CONTACT: Wash with soap and water. Call physician if irritation occurs.

INGESTION: Do not induce vomiting and call physician immediately. NOTE TO PHYSICIAN: Adrenalin should never be given to person overexposed to Methylene Chloride.

INHALATION: Move person to fresh air. If breathing stops, administer artificial respiration and call physician immediately.

SECTION 5. FIRE-FIGHTING MEASURES

FLASH POINT (°)F: None.

FIRE-FIGHTING INSTRUCTIONS: Foam, dry chemical or water spray. Use protective clothing and self-contained breathing apparatus. Concentrated vapors can be ignited by high intensity heat source. Drums may rupture/explode due to extreme pressure build-up.

DECOMPOSITION PRODUCTS: Decomposition produces CO, CO₂, HCl, C₂, phosgene, and various hydrocarbons.

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Evacuate spill area. Don appropriate respiratory, skin, and eye protective gear. Transfer spill material to secure container(s) for reuse or disposal. Dispense sand, sawdust, vermiculite, or other suitable material for chlorinated solvents and absorb spill residue. Transfer to secure disposal container. Do not allow spill material to enter sewers, surface waters, or drains.

SECTION 7. HANDLING AND STORAGE

HANDLING: Store above 40° F or below 100° F. Use good hygienic practices. (Wash hands before eating, using washroom, or smoking.) Prevent prolonged or repeated breathing of vapor or mist. Do not use as solvent cleaner. Do not use this product with aluminum equipment of any type. Intentional misuse by deliberately concentrating and inhaling solvents may be harmful or fatal and should be avoided. Open containers only in well ventilated locations with appropriate respiratory protection.

STORAGE: Store drum out of sun and away from heat. Relieve internal drum pressure when received and at least weekly thereafter by slowly loosening closure. Retighten immediately. Do not puncture, drag, or slide container.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION: Wear splash goggles or safety glasses with side shields depending on degree of potential contact.

SKIN PROTECTION: Wear impervious synthetic latex gloves approved for use with chlorinated solvents and protective clothing and chemical apron.

RESPIRATORY PROTECTION: If PEL or TLV is exceeded, use a NIOSH/MSHA approved respirator with organic cartridge approved for chlorinated solvents or a self-contained breathing apparatus.

ENGINEERING CONTROLS: Use sufficient ventilation, in volume and pattern, to keep air contaminant concentration below PEL or TLV. Do not use in closed or confined space. Site-specific mechanical ventilation is encouraged to maintain TLV.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (°F): 104 – 250

SPECIFIC GRAVITY (WATER = 1): 1.16

VAPOR PRESSURE: 125 @ 65°F

VAPOR DENSITY(air=1): 4.55

% VOLATILE BY WEIGHT: 56

APPEARANCE AND ODOR: Translucent liquid with ether odor.

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Strong alkalies and oxidizing materials.

SECTION 11. TOXICOLOGICAL INFORMATION

See SECTION 3.

SECTION 12. ECOLOGICAL INFORMATION

Methylene Chloride: Environmental Fate – In water rapidly evaporates, with estimated half-life ranging from 3 – 5.6 hrs under moderate mixing conditions. Hydrolysis is insignificant under normal conditions. Biodegradation in groundwater may occur but very slowly compared to evaporation. Bioconcentration is not expected. In soil, rapid evaporation is expected near surface. Leaching into groundwater is probable though soil adsorption potential is low. In air, degrades via hydroxyl radicals, with a half-life of several months and is not subject to direct photo-oxidation.

Ecotoxicity- Acute LC ₅₀ (96 Hours, flow through) for Fathead Minnow:	193 mg/L
Acute LC ₅₀ (96 Hours, static) for Fathead Minnow:	310 mg/L
Acute LC ₅₀ (96 Hours, static) for Bluegill:	220 mg/L @ 22 °C
Acute LC ₅₀ (96 Hours) for Shrimp:	256 mg/L

