

MATERIAL SAFETY DATA SHEET



Date Issued: 11/11/2009
 MSDS No: 70-GP1
 Date Revised: 11/11/2009
 Revision No: 1

MIRACLE-Kingco PF2001B Duct Liner Adhesive (item #PF2001B-05, PF2001B-55)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MIRACLE-Kingco PF2001B Duct Liner Adhesive (item #PF2001B-05, PF2001B-55)

MANUFACTURER

ITW TACC
 56 Air Station Industrial Park
 Rockland MA 02370

Product Stewardship: (781) 878-7015

Service Number: (800) 503-6991

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation): (800) 424-9300

2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION

"Xn" - Harmful

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Contains methylene chloride which is a nonflammable liquid with a mildly sweet odor.

IMMEDIATE CONCERNS: Contains methylene chloride which is harmful if inhaled. Can also cause skin and eye irritation. Methylene Chloride is a possible cancer hazard. May cause cancer based on animal data.

POTENTIAL HEALTH EFFECTS

EYES: Can cause moderate to severe eye irritation with temporary damage possible.

SKIN: Prolonged or repeated contact of liquid can cause irritation, defatting of skin, and dermatitis. Prolonged single exposure can result in a progressively severe burning sensation or redness.

SKIN ABSORPTION: Can be absorbed through the skin but not in sufficient amounts to cause adverse effects.

INGESTION: Low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting, resulting in rapid absorption and injury to other body systems.

INHALATION: Inhalation is the major potential route of exposure. Exposure to high concentrations of vapor or mist can cause central nervous system depression with symptoms of headache, dizziness, stupor, loss of consciousness or death depending on concentration and duration of exposure. Exposure to high concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure has been shown to cause adverse effects on the lungs, liver, kidney, nervous system and internal organs. Carboxyhemoglobin levels can be elevated in persons exposed to methylene chloride and can cause a substantial stress on the cardiovascular system.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes eye irritation.

SKIN: Mild to moderate skin irritant.

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SKIN ABSORPTION: Can be absorbed through the skin but not in sufficient amounts to cause adverse effects.

INGESTION: Single dose toxicity low to moderate.

INHALATION: Exposure to high concentrations of vapor or mist can cause central nervous system depression with symptoms of headache, dizziness, stupor, loss of consciousness or death depending on concentration and duration of exposure. Exposure to high concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure has been shown to cause adverse effects on the lungs, liver, kidney, nervous system and internal organs.

CHRONIC EFFECTS: Prolonged overexposure has caused toxic effects on the liver and kidneys.

CARCINOGENICITY: Methylene chloride has caused cancer in certain laboratory animal tests. IARC has classified methylene chloride in Group 2B as a substance considered possibly carcinogenic to humans. Methylene chloride appears on the NTP carcinogen list.

MEDICAL CONDITIONS AGGRAVATED: Alcoholism, acute and chronic liver and kidney disease, chronic lung disease, anemia, coronary disease or rhythm disorders of the heart. Exposure can result in cardiac sensitization and increase the risk of cardiac arrest.

ROUTES OF ENTRY: Inhalation is the major potential route of entry.

CANCER STATEMENT: Methylene chloride has caused cancer in certain laboratory animal tests. IARC has classified methylene chloride in Group 2B as a substance considered possibly carcinogenic to humans. Methylene chloride appears on the NTP carcinogen list.

IRRITANCY: Slight to moderate eye and skin irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS	EINECS	Classification
Dichloromethane	65 - 80	000075-09-2	2008389	Xn; 40

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of tempered water (at least 15-20 minutes) lifting upper and lower eye lids occasionally. Get immediate medical attention.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash or discard clothing and shoes before reuse.

INGESTION: Do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

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FLAMMABLE LIMITS: 14 to 22

AUTOIGNITION TEMPERATURE: (1033°F)

FLAMMABLE CLASS: Class IIIB

GENERAL HAZARD: Toxic liquid.

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical or foam.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride, carbon monoxide, carbon dioxide, and trace amounts of phosgene and chlorine

FIRE FIGHTING PROCEDURES: Concentrated vapors can be ignited by a high intensity energy source. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Use water spray to keep fire exposed containers cool. Extinguish using an agent suitable for surrounding fire. Firefighters should wear self-contained breathing apparatus with pressure demand, full face piece SCBA (MSHA/NIOSH approved or equivalent) and full protective gear.

SENSITIVE TO STATIC DISCHARGE: Not Applicable

SENSITIVITY TO IMPACT: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and trace amounts of phosgene and chlorine.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal. Only those persons who are adequately trained, authorized, and wearing the appropriate personal protective equipment (PPE) should participate in spill response and clean-up.

LARGE SPILL: Keep spectators away. Only those persons who are adequately trained, authorized and wearing the required personal protective equipment (PPE) should participate in spill response and clean-up. Know and prepare for spill response before using or handling this product. Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered and labeled containers for disposal. Use appropriate PPE. Place absorbent diking materials in covered containers for disposal. Prevent contamination of sewers, streams, and groundwater with spilled material or used absorbent.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: For professional or industrial use only. Follow label instructions. Keep out of the reach of children. Not for consumption. No smoking. Do not breathe vapors. Avoid contact with body. Empty containers must not be washed and re-used for any purpose. Contact lens wearers must wear protective eye wear around chemical vapors and liquid. Wash hands thoroughly after handling. To prevent build-up of vapors, use adequate natural and/or mechanical ventilation (e.g. open all windows and doors to achieve cross ventilation).

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HANDLING: Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

STORAGE: Keep container closed when not in use. Store in a dry well ventilated area, out of the sun and away from ignition sources. Do not remove or deface label. Prevent water or moist air from entering container.

STORAGE TEMPERATURE: 15.5°C (60°F) Minimum to 35°C (95°F) Maximum

SHELF LIFE: 9 months from manufacture date

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Dichloromethane	TWA	25 ppm ^[1]	NL ^[1]	50 ppm	174 mg/m ³
	STEL	125 ppm	NL	NL ^[2]	NL ^[2]
Footnotes:					
1. OSHA limits per 29 CFR 1910.1052					
2. NL = Not Listed					

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use only in a well ventilated area. To determine exposure levels, monitoring should be performed as outlined by OSHA Standard 29 CFR 1910.1052.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields. A face shield may be necessary if spraying the product.

SKIN: Wear chemical resistant gloves such as Viton, PVA or equivalent. Wear chemical protective clothing & boots to prevent repeated or prolonged skin contact.

RESPIRATORY: Where vapor concentrations exceed or are likely to exceed the occupational exposure limits, a NIOSH approved continuous flow supplied air respirator, hood or helmet is recommended. A NIOSH approved self-contained positive pressure breathing apparatus with full face piece is required for spills and/or emergencies.

WORK HYGIENIC PRACTICES: Wash hands thoroughly after use.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mildly sweet odor

COLOR: Clear

PERCENT VOLATILE: 73.0

Notes: by weight

BOILING POINT: 39.8°C (104°F)

EVAPORATION RATE: < 1.0 (n-Butyl Acetate=1)

DENSITY: 10.0 lbs/gal

SPECIFIC GRAVITY: 1.199

(VOC): EPA Method 24 VOC: 0 gr/L

Notes: Photochemically Reactive Only VOC: 0 gr/L

COMMENTS: 2.70 lb VHAP/lb Solid
73.0% by weight HAP

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: Stable.

POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Avoid contact with open flame, electric arcs, or other hot surfaces which can cause thermal decomposition.

POSSIBILITY OF HAZARDOUS REACTIONS: None Expected.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and trace amounts of phosgene and chlorine.

INCOMPATIBLE MATERIALS: Strong alkalis, oxygen, nitrogen peroxide, sodium, potassium, and other oxidizers and reactive metals.

11. TOXICOLOGICAL INFORMATION

ACUTE

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Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Dichloromethane	1500 to 2500 mg/kg	No data	14400 ppm (7-hr dose - mouse)

CHRONIC: Adverse effects on the liver and kidneys have been reported on laboratory animals. The finding of chronic toxic effects in laboratory animals may indicate toxicity to humans.

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Dichloromethane	2	2B	X

IARC: Group 2B Animal Carcinogen

NTP: Animal Carcinogen

Notes: This product contains methylene chloride, a chemical known to the State of California to cause cancer.

IRRITATION: Mild to moderate eyes and skin irritation.

CORROSIVITY: Not Applicable

SENSITIZATION: Not Applicable

NEUROTOXICITY: Not Applicable

GENETIC EFFECTS: Not Applicable

REPRODUCTIVE EFFECTS: Laboratory animal studies on mice, rats and rabbits have been conducted to evaluate the potential reproductive and developmental effects of methylene chloride exposures. Methylene chloride exposure has not been shown to cause teratogenic effects (birth defects) in experimental animals.

MUTAGENICITY: Methylene chloride has been evaluated for its potential to induce genotoxic effects in both in vivo and in vitro systems with mixed results. Based on this evidence, methylene chloride exposure may be considered to be a weak mutagen in mammalian systems.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Methylene chloride is expected to evaporate rapidly from both water and near-surface soil.

ECOTOXICOLOGICAL INFORMATION: Contains components that are potentially toxic to freshwater and saltwater ecosystems.

BIOACCUMULATION/ACCUMULATION: Contains components with the potential to bio-accumulate.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations.

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14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Toxic Liquid, Organic, N.O.S.

TECHNICAL NAME: Contains (Dichloromethane)

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: 2810

PACKING GROUP: III

NAERG: 153

MARINE POLLUTANT #1: None

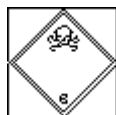
SPECIAL SHIPPING NOTES: If individual container size is less than 1.3 gallons, the proper shipping name is:

ORM-D Consumer Commodity
Non-Regulated

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION



Poison

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No **CHRONIC:** Yes

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
Dichloromethane	65 - 80	000075-09-2

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Dichloromethane	65 - 80	2200 kg

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Dichloromethane	000075-09-2

CLEAN AIR ACT

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Chemical Name	Wt.%	CAS
Dichloromethane	65 - 80	000075-09-2

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Dichloromethane	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical

CALIFORNIA PROPOSITION 65

Chemical Name	Wt.%	Listed
Dichloromethane	65 - 80	• Cancer

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Poison

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION



"Xn" - Harmful

16. OTHER INFORMATION

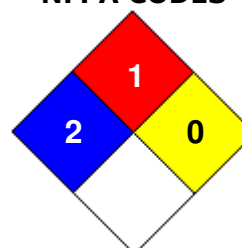
INFORMATION CONTACT: (781) 878-7015

REVISION SUMMARY: Revision #: 1 This MSDS replaces the October 01, 2009 MSDS. Any changes in information are as follows: In Section 1 Date Prepared In Section 9 VOC (Unit) VOC Method

HMIS RATING

HEALTH:	1	2
FLAMMABILITY:	2	1
PHYSICAL HAZARD:	3	0
PERSONAL PROTECTION:	B	

NFPA CODES



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GENERAL STATEMENTS: Keep out of reach of children

For professional or industrial use only

If you cannot read, or do not understand all directions, cautions, and warnings, do not use this product

MANUFACTURER DISCLAIMER:

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