

**MATERIAL SAFETY DATA SHEET**

Date Issued: 01/21/2009

MSDS No: 11-400

Revision No: New MSDS

**MIRACLE-Kingco PF-101 Duct Liner Adhesive****1. PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** MIRACLE-Kingco PF-101 Duct Liner Adhesive**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****EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS:** WARNING! Contains crystalline silica (quartz). Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans.

**POTENTIAL HEALTH EFFECTS****EYES:** Mildly irritating to the eyes.**SKIN:** Not likely to be absorbed in toxic amounts. Prolonged exposure may cause skin irritation. Avoid skin contact as much as possible.**SKIN ABSORPTION:** None Expected.**INGESTION:** This material may be harmful or fatal if swallowed in large quantities. Small amounts are not expected to produce adverse health effects.**INHALATION:** Materials are low in volatility and are not likely to pose a problem under normal operating conditions. Slight irritation to nose and throat with prolonged or repeated exposure.**SIGNS AND SYMPTOMS OF OVEREXPOSURE****EYES:** Slight irritation.**SKIN:** Slight skin irritation.**SKIN ABSORPTION:** None Expected.**INGESTION:** None known, not likely route of entry.**INHALATION:** Materials are low in volatility therefore not likely to pose a problem.**CHRONIC EFFECTS:** None Expected.**CARCINOGENICITY:** IARC has concluded that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)".

IARC has also concluded that vinyl acetate is "possibly carcinogenic to humans (Group 2B)".

**MUTAGENICITY:** None known.**REPRODUCTIVE TOXICITY****REPRODUCTIVE EFFECTS:** None known.

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**TERATOGENIC EFFECTS:** None known.

**ROUTES OF ENTRY:** Eye and skin contact. Inhalation and ingestion are unlikely routes of entry.

**TARGET ORGAN STATEMENT:** None known.

**IRRITANCY:** Slight eye and skin irritation.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS	EINECS	Classification
Diethylene Glycol	1 - 5	000111-46-6	203-872-2	Xn; 22
Silica, Crystalline	0.1 - 1	014808-60-7	238-878-4	Xn; 48/20-40/20
Vinyl Acetate	< 0.5	000108-05-4	203-545-4	F, Xn; 11-20-21-22-36-45

**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:** Wash with soap and water. Get medical attention if irritation develops or persists.

**INGESTION:** Small amounts are not expected to produce adverse health effects. Larger amounts should be recovered by aspiration. Get medical attention.

**INHALATION:** No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

**5. FIRE FIGHTING MEASURES****FLAMMABLE LIMITS:**

**Notes:** Not Applicable

**FLAMMABLE CLASS:** Class IIIB

**GENERAL HAZARD:** Combustible Liquid.

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

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon Monoxide, Carbon Dioxide

**EXPLOSION HAZARDS:** Decomposition products may cause a health hazard.

**FIRE FIGHTING PROCEDURES:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear. After water evaporates, remaining material will burn.

**SENSITIVE TO STATIC DISCHARGE:** Not Applicable

**SENSITIVITY TO IMPACT:** None known.

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**HAZARDOUS DECOMPOSITION PRODUCTS:** Fumes, smoke, carbon monoxide and carbon dioxide may form when heated to decomposition.

**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 adsorbent, 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).

**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:** 1 year from manufacture date

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Diethylene Glycol	TWA	NL [1]	NL [1]	NL [1]	NL [1]
	STEL	NL [1]	NL [1]	NL [1]	NL [1]
Silica, Crystalline	TWA	NL	0.1 mg/m <sup>3</sup>	NL	0.05 mg/m <sup>3</sup>
	STEL	NL [1]	NL [1]	NL [1]	NL [1]
Vinyl Acetate	TWA	NL [1]	NL [1]	10 ppm	35 mg/m <sup>3</sup>
	STEL	NL [1]	NL [1]	15 ppm	53 mg/m <sup>3</sup>
<b>Footnotes:</b> 1. NL = Not Listed					

**ENGINEERING CONTROLS:** Natural ventilation should be adequate under normal conditions.

#### PERSONAL PROTECTIVE EQUIPMENT

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

**SKIN:** Wear impervious gloves, if needed, to prevent repeated or prolonged skin contact.

**RESPIRATORY:** No respiratory protection required under normal conditions.

**WORK HYGIENIC PRACTICES:** Wash hands thoroughly after use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**COLOR:** White or Black

**PERCENT VOLATILE:** 40.4

**Notes:** by weight

**BOILING POINT:** >= 100°C (212°F)

**SOLUBILITY IN WATER:** Soluble

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

**DENSITY:** 9.82 lbs/gal

**SPECIFIC GRAVITY:** 1.178

**(VOC):** 0.700 gr/L EPA Method 24 VOC

**Notes:** Photochemically Reactive Only VOC: 0.3 gr/L

**COMMENTS:** 0.0005 lb VHAP/lb Solid

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0.03% by weight HAP

### 10. STABILITY AND REACTIVITY

**STABLE:** Yes**HAZARDOUS POLYMERIZATION:** No**STABILITY:** Stable.**POLYMERIZATION:** Product will not undergo polymerization.**CONDITIONS TO AVOID:** None known.**POSSIBILITY OF HAZARDOUS REACTIONS:** None Expected.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide may form when heated to decomposition.**INCOMPATIBLE MATERIALS:** Strong acids or alkaline materials.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
Diethylene Glycol	25300 mg/kg	11900 mg/kg	No data
Silica, Crystalline	No data	No data	No data
Vinyl Acetate	2920 mg/kg	2335 mg/kg (rabbits)	2500 ppm (4-hr rabbit)

#### CARCINOGENICITY

Chemical Name	NTP Status	IARC Status
Silica, Crystalline	1	1
Vinyl Acetate		2B

**IARC:** IARC has concluded that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group I)".

IARC has also concluded that vinyl acetate is "possibly carcinogenic to humans (Group 2B)".

**NTP:** Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.

**OSHA:** Not Applicable**Notes:** Not Applicable**IRRITATION:** Slight eyes and skin irritation.**CORROSIVITY:** Not Applicable**SENSITIZATION:** Not Applicable

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**NEUROTOXICITY:** Not Applicable  
**GENETIC EFFECTS:** Not Applicable  
**REPRODUCTIVE EFFECTS:** Not Applicable  
**TERATOGENIC EFFECTS:** Not Applicable  
**MUTAGENICITY:** Not Applicable  
**SYNERGISTIC MATERIALS:** Not Applicable

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL DATA:** This product contains components that will normally float on water. These components may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment.

**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.

**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** Not Regulated for Transport

**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****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

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

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt. %	CAS
Vinyl Acetate	< 0.5	000108-05-4

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

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Chemical Name	Wt.%	CERCLA RQ
Vinyl Acetate	< 0.5	5,000

### TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS	TSCA SECTION
Diethylene Glycol	000111-46-6	
Silica, Crystalline	014808-60-7	
Vinyl Acetate	000108-05-4	12b,

### CLEAN AIR ACT

Chemical Name	Wt.%	CAS
Diethylene Glycol	1 - 5	000111-46-6
Vinyl Acetate	< 0.5	000108-05-4

### STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Silica, Crystalline	New Jersey Right to Know List Pennsylvania Right to Know List Massachusetts Toxic Use Reduction Act (TURA) Reportable Chemical
Vinyl Acetate	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
Silica, Crystalline	0.1 - 1	• Cancer

### 16. OTHER INFORMATION

**INFORMATION CONTACT:** (781) 878-7015

**REVISION SUMMARY:** New MSDS

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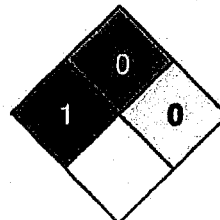
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**MIRACLE-Kingco PF-101 Duct Liner Adhesive****HMIS RATING**

HEALTH:	1
FLAMMABILITY:	0
PHYSICAL HAZARD:	0
<b>PERSONAL PROTECTION:</b>	<b>B</b>

**NFPA CODES****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

For spray applications, use only with approved equipment

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