MATERIAL SAFETY DATA SHEET

Industrial Use Only

MIPCO

Date Issued: 08/13/2008
MSDS No: Silica Flour
Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: Silica Flour to be mixed with epoxy resin to fill fine cracks.
PRODUCT DESCRIPTION: Silica Flour
PRODUCT CODE: Silica Flour

MANUFACTURER

Midwest Industrial Products Corp.
7424 Bessemer Avenue
Cleveland OH 44127
Product Stewardship: 216-771-8555
Service Number: 800-521-2107

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CHEMTREC (Out Side USA) :(703) 527 - 3887

COMMENTS: EMERGENCY TELEPHONE NUMBER: In the event of an emergency involving spills, leaks, fire, exposure, or accident involving this product, contact CHEMTREC. Within the USA, Canada, or US Virgin Islands call CHEMTREC at 1-800-424-9300, 24 hours a day. Out side these areas call (703) 527-3887. Collect calls are accepted.

2. HAZARDS IDENTIFICATION

HAZARD DESIGNATION

"Xi" - Irritant

R48/20: Harmful : danger of serious damage to health by prolonged exposure through inhalation.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: White to gray fine powder.

IMMEDIATE CONCERNS: USE WITH CAUTION! This product may cause eye, skin, and respiratory tract irritation. Aggregate particals can cause eye and skin abrasions. A single exposure will not result in serious adverse health effects. Crystalline silica (quartz) is not known to be an environmental hazard. Crystalline silica (quartz) is incompatible with hydrofloric acid, fluorine, chlorine trifluoride or oxygen difluoride.

POTENTIAL HEALTH EFFECTS

EYES: May cause abrasion to the cornea.

SKIN: May cause skin irritation.

INGESTION: Ingestion is not expected to be a significant route into the body.

INHALATION: Chronic inhalation of respirable crystalline silica may cause silicosis; a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Crystalline silica inhaled from occupational sources is classified as carcinogenic to humans. There is some evidence that inhalation of respirable crystalline silica or silicosis is associated with an increase of scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin, and other internal organs), and kidney disease. Silicosis is also reported to increase the risk of tuberculosis. Generally, there are no signs or symptoms of exposure to crystalline silica. The condition of individuals with lung disease (e.g.

bronchitis, emphysema, chronic obstructive pulmonary disease) can be aggravated by exposure.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Silica, Crystalline	> 87	014808-60-7	238-878-4
Aluminum Oxide	< 4.5	001344-28-1	215-691-6
Iron Oxide	< 1.2	001309-37-1	215-168-2
Titanium Dioxide	< 0.01	013463-67-7	236-675-5

COMMENTS: Criteria for listing components in this MSDS are as follows: Carcinogens are listed at 0.1% or greater; hazardous components according to OSHA 29 CFR 1910.1200 are listed at 1.0% or greater; non-hazardous components are not listed. This is not intended to be the complete compositional disclosure. Refer to section 15 for other regulatory information.

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water for two minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Have eyes examined and tested by medical personnel.

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

INGESTION: May cause gastrointestinal discomfort. Give one or tow glasses of water. If discomfort persists, see a physician.

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 CLASS: NA = Not Applicable

EXTINGUISHING MEDIA: Non-combustible. May be used to extinguish fires.

FIRE FIGHTING PROCEDURES: This material can be used to extinguish fires.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Vacuum or sweep up material and place in a disposal container.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Store product in original containers. Store in a cool, dry, well ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**	**ppm**	**mg/m³**
Silica, Crystalline	**TWA**	NL ppm [1]	(0.1) mg/m3 [1]	NL ppm	(0.1) mg/m3	NL ppm	NL mg/m3
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL ppm	NL mg/m3
Aluminum Oxide	**TWA**	NL ppm [1]	10;5 mg/m3 [1]	NL ppm	10 mg/m3	NL ppm	NL mg/m3
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL ppm	NL mg/m3
Titanium Dioxide	**TWA**	[1]	15	[1]	10	[2]	[2]
	STEL	[2]	[2]	[2]	[2]	[2]	[2]

OSHA TABLE COMMENTS:
1. NL = Not Listed
2. Not Established

ENGINEERING CONTROLS: Proper industrial hygiene practices are required for workers and should be achieved though engineering controls including ventilation with a high turn over rate whenever feasible. When such controls are not availible or not feasible to achieve full protection, respirators for workers (and others in the area) and other personal protective equipment is mandated. Exhaust air may need to be scrubbed (cleaned) or filtered to reduce environmental contamination and odors.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety goggles or safety glasses with side shields when handling and mixing this material.

SKIN: Not normally required.

RESPIRATORY: For respirator selection and training, seek professional advice. Whenever workplace conditions require a use of a respirator, follow a respiratory protection program that meets OSHA (29CFR 1910.134), MSHA (30 CFR Parts 56 & 57) and ANSI (Z88.2) requirements. Wear an OSHA/NIOSH approved respirator selected on its suitability to provide adequate worker protection for respirable particulates based on airborne workplace concentrations and duration of exposure arising from intended end use.

OTHER USE PRECAUTIONS: Avoid generating dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Odorless

APPEARANCE: White or Gray

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 2.650 g/cm3

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: This material (product) is stable under normal ambient conditions of temperature and pressure. Follow recommendations for proper storage and use.

CONDITIONS TO AVOID: Contact with water or moisture.

HAZARDOUS DECOMPOSITION PRODUCTS: None Expected.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY

IARC: The agent (mixture) is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans: Crystalline Silica.

NTP: The National Toxicology Program (NTP), in its Ninth Annual Report on Carcinogens, classified "silica, crystalline (respirable)" and a known human carcinogen.

OSHA: Crystalline silica (quartz) is not regulated as a human carcinogen by OSHA as a carcinogen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No environmental data has been established or is available for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: May be landfilled according to local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

AIR (ICAO/IATA)

SHIPPING NAME: Not Regulated

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Regulated

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Aluminum Oxide	001344-28-1

TSCA STATUS: All ingredients in this mixture are listed with the TSCA Chemical Substance Inventory.

CALIFORNIA PROPOSITION 65: Component(s) known to the State of California to cause cancer

and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986": Crystalline Silica.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

Toxic
D2A - Poisonous and infectious material - Other effects - Very toxic

DOMESTIC SUBSTANCE LIST (INVENTORY): This product or its components are listed or exempt from the Canadian Domestic Substance List (DSL). Components not listed have been submitted to Environment Canada.

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION

"Xi" - Irritant

R48/20: Harmful : danger of serious damage to health by prolonged exposure through inhalation.

S22: Do not breathe dust.

S36/39: Wear suitable protective clothing and eye/face protection.

EUROPEAN COMMUNITY REGULATORY: EINECS Inventory Status: The components in this product are listed on or exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substance (ELINCS).

Australian Inventory Status: The components in this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

REASON FOR ISSUE: New MSDS

PREPARED BY: TAG

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	*	1
FLAMMABILITY:		0
PHYSICAL HAZARD:		0
PERSONAL PROTECTION:		E

MANUFACTURER DISCLAIMER: This MSDS to the best of our knowledge conforms to the requirements of OSHA 29 CFR 1910.1200, 91/155/EEC and summarizes the health and safety hazard information and general guidance on how to safety handle the material at the date of issue. Each user must review the MSDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user

should contact this company. Responsibility for the product sold is subject to our standard terms and conditions, a copy if which is available upon request.This company warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, NO GUARANTY, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS, OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY OR SUITABILITY OR FITNESS OF ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE, OR THAT ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS OR THE USE THEREOF ARE NOT SUBJECT TO A CLAIM BY A THIRD PARTY FOR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. Liability by this company for all claims, whether arising out of breach of warranty, negligence, strict liability, or otherwise, is limited to the purchase price of the material. Products may be toxic and require special precautions in handling. For all products listed, the user should obtain detailed information on toxicity, together with the proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. Toxicity and risk characteristics of chemical compounds and other products may differ when used with other materials or in a manufacturing or other process. Those risk characteristics should be determined by the user and made known to handlers, processors, and end users.