

# Material Safety Data Sheet

#430

## SECTION I — IDENTITY AND MANUFACTURER'S INFORMATION

Manufacturer's Name	HILLYARD CHEMICAL COMPANY	Product Name	KNO-SAND
Address	302 North Fourth Street St. Joseph, MO 64502	Date Prepared	October 19, 1986
Emergency Telephone No. And Other Information Calls	(816) 233-1321	Prepared by Regulatory Affairs Department	

## SECTION II — HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity: Common Name(s))	CAS #'s	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (Option)
Methylene chloride	75-09-2	500 ppm	100 ppm	N/A	77-81
Butyl cellosolve	111-76-2	50 ppm	25 ppm	N/A	0.5-1
Methyl alcohol	67-76-2	200 ppm	200 ppm	N/A	5-10
Monoethanolamine	141-43-5	3 ppm	3 ppm	N/A	0.5-2
Petroleum distillate (naphtha solvent) *	64742-95-6	not listed	not listed	35 ppm	2-4

\* not the same petroleum distillate per CAS # as the one in OSHA and ACGIH tables

## SECTION III — PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	103-105°F	Specific Gravity (H <sub>2</sub> O = 1)	1.164
Vapor Pressure (mm Hg.)	N/A	Percent Volatile By Volume (%)	92.5
Vapor Density (AIR = 1)	>1	Evaporation Rate (ethyl ether = 1)	>1
Solubility in Water	moderate	Appearance and Odor	yellow, thick liquid; methylene chloride od.

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	101°F (T.C.C.)	Flammable Limits	LEL 1.0	UEL no data
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Extinguishing Media  
NFPA Class B extinguishers (CO<sub>2</sub>, dry chemical or foam)

Special Fire Fighting Procedures  
Self-contained breathing equipment should be used by firemen in buildings where product is burning.

Unusual Fire and Explosion Hazards  
Vapor can be ignited by high energy ignition source. Decomposes with fire or hot surface to acidic gases and other highly toxic substances.

## SECTION V — PHYSICAL HAZARDS

Stability	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>	Conditions to Avoid	Methylene chloride may produce small amounts of hydrochloric acid when hydrolized with gross amounts of water contamination.
Incompatibility (Materials to Avoid)	Aluminum; possibly sodium, potassium and magnesium. Contact with aluminum parts in a pressurizable fluid system may cause violent reactions. Consult equipment supplier for more details.		

Hazardous Decomposition Products Or Byproducts  
Open flames and welding arcs can cause thermal degradation with the evolution of hydrogen chloride and very small amounts of phosgene and chlorine.

Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions To Avoid	N/A
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**SECTION VI — HEALTH HAZARD DATA**

Route(s) of Entry: Inhalation? yes Skin? possible, but unlikely Ingestion? possible, but unlikely  
 Health Hazards (1. Acute and 2. Chronic) 1. Carbon monoxide formation in the body; exposure risk greater for smokers and individuals with heart disease. Inhalation--900 ppm may cause dizziness, nausea, headaches; vomiting can occur above 2000 ppm.  
 2. Prolonged gross excess or beyond 9000 ppm on methylene chloride may cause loss of consciousness and death.

Chemical Listed as Carcinogen or Potential Carcinogen: National Toxicology Program Yes ☒ \* animal tests IARC Monographs Yes ☐ OSHA Yes ☐ No ☒

Signs and Symptoms of Exposure: Contains methylene chloride which has been shown to cause cancer in certain laboratory animal tests. Risk to health depends upon level and duration of exposure. Excess skin contact has a tendency to dehydrate causing dermatitis of skin. Eye contact causes dehydration.

**Medical Conditions****Generally Aggravated by Exposure**

Methylene chloride - acute and chronic liver and kidney disease, chronic lung disease, anemia, coronary disease or rhythm disorders of heart.

**Emergency and First Aid Procedures**

Ingestion: immediately give one or two glasses of water and call physician, hospital emergency room or poison control center for way to induce vomiting. Eye contact: immediately flush thoroughly with water and call physician. Skin contact: wash thoroughly (wash clothing before reuse). Inhalation: remove to fresh air; if breathing stops use artificial respiration. Call physician.

**SECTION VII — PRECAUTIONS FOR SAFE HANDLING AND USE****Steps To Be Taken In Case Material Is Released Or Spilled**

Provide adequate ventilation. Use approved air purifying respirator if needed to maintain ppm below exposure guidelines. Small spills: mop up, wipe up or soak up immediately. Remove to outdoors. Large spills: provide proper respiratory protection if necessary; contain liquid and transfer to closed metal container. Keep out of water supply.

**Waste Disposal Method**

Send to licensed reclaimer, permitted incinerators, or evaporate very small quantities in compliance with local, state and federal regulations including Subtitle C of the Resource Conservation and Recovery Act. Dumping into sewers, on the ground, or with any other body of water is strongly discouraged and may be illegal.

**Precautions To Be Taken In Handling And Storing**

Avoid breathing vapors; store in cool place. Concentrated vapors of this product are heavier than air and collect in low areas. Store in sealed container; avoid contact with skin and eyes.

**Other Precautions**

Consult federal, state or local disposal authorities for approved disposal procedures.

Methylene chloride = waste #U080; Methanol = #U154

**SECTION VIII — CONTROL MEASURES**

Respiratory Protection (Specify Type) \*Wear appropriate, properly fitted respirator (NIOSH or MSHA approved) unless air monitoring demonstrates vapor is below applicable limits. Follow resp. mfg. directions.

Ventilation	Local Exhaust	Mechanical (General)	Special	Other
	recommended	recommended	N/A	N/A

**Protective Gloves**

solvent resistant

**Other Protective Clothing Or Equipment**

Protective clothing such as uniforms or coveralls. Use impervious clothes where frequent skin contact is a concern.

**Work/Hygienic Practices**

Do not eat, drink or smoke in work area. Wash hands prior to eating, drinking or using restroom.

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 \* Where vapor concentration is between 100-1000 ppm organic vapor type respirator is acceptable. Approved self-contained breathing apparatus or air line respirator with full face-piece is required for vapor concentrations above 1000 ppm.