




Phosgene Chemistry – Custom Chemicals

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td>3*</td> </tr> <tr> <td>Fire Hazard</td> <td>3</td> </tr> <tr> <td>Reactivity</td> <td>2</td> </tr> </table>	Health Hazard	3*	Fire Hazard	3	Reactivity	2		
Health Hazard	3*								
Fire Hazard	3								
Reactivity	2								

*Indicates a chronic health hazard.

Issuing Date 28-May-2008

Revision Date

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name 2-Carbomethoxybenzenesulfonyl Isocyanate Solution in Xylene

UN-No UN3080

Supplier Address

VanDeMark Chemical Inc
 1 North Transit Road
 Lockport NY 14094 USA
 Telephone: 716-433-6764

Emergency Telephone Number CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
 1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview
FLAMMABLE LIQUID AND VAPOR

Corrosive
 Toxic

Harmful by inhalation, in contact with skin and if swallowed
 May produce an allergic reaction
 Water reactive

Appearance Clear to yellow

Physical State Liquid.

Odor Aromatic, Acrid

Potential Health Effects

Principle Routes of Exposure Inhalation, Skin contact, Eye contact.

Acute Toxicity

Eyes Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Risk of serious damage to eyes.

Skin Harmful in contact with skin. Causes burns. May cause sensitization by skin contact.

Inhalation Harmful by inhalation. Causes burns. May cause allergic respiratory reaction.

Ingestion Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tract. May cause additional affects as listed under "Inhalation".

Chronic Effects

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risks of irreversible effects.

Aggravated Medical Conditions

Allergies, Skin disorders, Respiratory disorders.

Interactions with Other Chemicals

Irritants. Sensitizers. Epoxies.

Environmental Hazard

See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Xylenes (o-, m-, p- isomers)	1330-20-7	60-75
2-Carbomethoxybenzenesulfonyl Isocyanate	74222-95-0	25-40

4. FIRST AID MEASURES

General Advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediate medical attention is required.. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician if necessary.
Inhalation	Call a physician or Poison Control Center immediately. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Ingestion	Immediate medical attention is required. Call a physician or Poison Control Center immediately. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Remove from exposure, lie down.
Notes to Physician	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. Treat symptomatically.
Protection of First-aiders	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Flammable; may be ignited by heat, sparks or flames.
Flash Point	84°F / 29°C
Suitable Extinguishing Media	Carbon dioxide (CO ₂). Foam. Dry powder.
Unsuitable Extinguishing Media	Water.
Hazardous Combustion Products	Carbon monoxide, Carbon dioxide (CO ₂), Sulfur oxides, Aromatic sulfonamide.
Explosion Data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	Yes.
Specific Hazards Arising from the Chemical	The product causes burns of eyes, skin and mucous membranes. Flammable. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	Health Hazard 3	Flammability 3	Stability 2	Physical and Chemical Hazards W
HMIS	Health Hazard 3*	Flammability 3	Physical Hazard 0	Personal Protection X

**Indicates a chronic health hazard.*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Cleaning Up	Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.
Other Information	Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Handling	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines	
Engineering Measures	Showers Eyewash stations Ventilation systems
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin and Body Protection	Protective gloves. Nitrile rubber. Impervious butyl rubber gloves. Impervious clothing. Apron.
Respiratory Protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to yellow.	Odor	Aromatic, Acrid.
Odor Threshold	No information available	Physical State	Liquid
pH	Not applicable		
Flash Point	84°F / 29°C	Autoignition Temperature	495°C / 923°F
Decomposition Temperature	No information available	Boiling Point/Range	144°C / 291°F
Melting Point/Range	No information available		
Flammability Limits in Air	No information available	Explosion Limits	No information available
Water Solubility	Reacts with water	Solubility	No information available
Evaporation Rate	No information available	Vapor Pressure	38 mmHg @ 20 °C
Vapor Density	No data available	VOC Content	70

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Incompatible Products	Strong acids. Strong bases. Water. Alcohols. Amines.
Conditions to Avoid	Heating in air. Exposure to air or moisture over prolonged periods.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO ₂). Sulfur oxides. Aromatic sulfonamide.
Hazardous Polymerization	Hazardous polymerization may occur in the presence of alcohols, acids, bases and amines.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Harmful by inhalation, in contact with skin and if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Xylenes (o-, m-, p- isomers)	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	47635 mg/L (Rat) 4 h 5000 ppm (Rat) 4 h
2-Carbomethoxybenzenesulfonyl Isocyanate	350 mg/kg (Rat)	500 mg/kg (Rat)	

Chronic Toxicity

Chronic Toxicity Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen. Avoid repeated exposure. Possible risks of irreversible effects.

Sensitization May cause sensitization of susceptible persons.

Target Organ Effects Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Xylenes (o-, m-, p- isomers)		LC50= 13.4 mg/L Pimephales promelas 96 h LC50= 16.1 mg/L Lepomis macrochirus 96 h LC50= 26.7 mg/L Pimephales promelas 96 h LC50= 8.05 mg/L Oncorhynchus mykiss 96 h	EC50 = 0.0084 mg/L 24 h	LC50 = 0.6 mg/L 48 h EC50 = 3.82 mg/L 48 h

Chemical Name	Log Pow
Xylenes (o-, m-, p- isomers)	3.15

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Do not re-use empty containers.

US EPA Waste Number D001
D002

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Xylenes (o-, m-, p- isomers) - 1330-20-7		Included in waste stream: F039		U239

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Xylenes (o-, m-, p- isomers)	Toxic; Ignitable

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Isocyanate solution, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
UN-No UN3080
Packing Group II
Reportable Quantity (RQ) Xylenes isomers and mixture, RQ kg = 64.85714
Description Isocyanate solutions, toxic, flammable, n.o.s. (2-carbomethoxybenzenesulfonyl isocyanate, xylenes), 6.1, (3), UN3080, PG II RQ (Xylenes)
Emergency Response Guide Number 155

TDG

Proper Shipping Name Isocyanate solution, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
UN-No UN3080
Packing Group II

14. TRANSPORT INFORMATION

Description ISOCYANATE SOLUTION, TOXIC, FLAMMABLE, N.O.S.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1,UN3080,PG II

MEX

Proper Shipping Name Isocyanates, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
UN-No UN3080
Packing Group II
Description UN3080 Isocyanates, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1,II

ICAO

UN-No UN3080
Proper Shipping Name Isocyanate solution, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
Packing Group II
Description Isocyanate solution, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1(3),UN3080,PG II

IATA

UN-No UN3080
Proper Shipping Name Isocyanate solution, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
Packing Group II
ERG Code 6F
Description UN3080,Isocyanate solution, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1(3),PG II

IMDG/IMO

Proper Shipping Name Isocyanates, toxic, flammable, n.o.s.
Hazard Class 6.1
Subsidiary Class 3
UN-No UN3080
Packing Group II
EmS No. F-E, S-D
Description UN3080, Isocyanates, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1(3),PG II

RID

Proper Shipping Name Isocyanates, toxic, flammable, n.o.s.
Hazard Class 6.1
UN-No UN3080
Packing Group II
Classification Code TF1
Description UN3080 Isocyanates, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1,II,RID
ADR/RID-Labels 6.1 + 3

ADR

Proper Shipping Name Isocyanates, toxic, flammable, n.o.s.
Hazard Class 6.1
UN-No UN3080
Packing Group II
Classification Code TF1

14. TRANSPORT INFORMATION

Description UN3080 Isocyanates, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1,II
ADR/RID-Labels 6.1 + 3

ADN

Proper Shipping Name Isocyanates, toxic, flammable, n.o.s.
Hazard Class 6.1
Packing Group II
Classification Code TF1
Special Provisions 274, 551, 802
Description UN3080 Isocyanates, toxic, flammable, n.o.s.(2-carbomethoxybenzenesulfonyl isocyanate, xylenes),6.1,II
Hazard Labels 6.1 + 3
Limited Quantity LQ17
Ventilation VE01, VE02

15. REGULATORY INFORMATION

International Inventories

TSCA Does not Comply
DSL Does not comply
ENCS Does not comply
IECSC Complies
KECL Does not comply
PICCS Does not comply
AICS Does not comply

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372: .

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Xylenes (o-, m-, p- isomers)	1330-20-7	60-100	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes
Sudden Release of Pressure Hazard No
Reactive Hazard Yes

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):.

16. OTHER INFORMATION

Issuing Date	28-May-2008
Revision Date	
Revision Note	No information available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet