

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name	o-Xylene, Reagent	Product Code	XX0020
Manufacturer	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	Effective Date	3/3/2003
		Print Date	5/11/2004

For More Information Call

856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call

800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym	1,2-DIMETHYLBENZENE; O-XYLOL
Material Uses	Analytical reagent.
Chemical Family	Aromatic.

Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
O-XYLENE	95-47-6	100

Section 3. Hazards Identification

Physical State and Appearance	Liquid. (Colorless.)
Emergency Overview	DANGER! FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LIVER, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA. MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
Routes of Entry	Inhalation. Ingestion.
Potential Acute Health Effects	Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

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Skin Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator).

Inhalation Hazardous in case of inhalation (lung irritant).

Ingestion Extremely hazardous in case of ingestion. May be fatal if swallowed.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Additional information See Toxicological Information (section 11)

Medical Conditions Aggravated by Overexposure: Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flammability of the Product Product will burn.

Auto-ignition Temperature 464.9°C (868.8°F)

Flash Points Closed cup: 31.9°C (89.4°F).

Flammable Limits LOWER: 0.9% UPPER: 6.7%

Products of Combustion These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances Highly flammable in presence of open flames, sparks and static discharge, of heat, of oxidizing materials.

Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of static discharge:
 Highly flammable in presence of open flames, sparks and static discharge.
 Highly explosive in presence of open flames, sparks and static discharge.
Risks of explosion of the product in presence of mechanical impact: No.

Fire Fighting Media and Instructions Flammable liquid, insoluble in water.
 SMALL FIRE: Use DRY chemical powder.
 LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

Protective Clothing (Fire) Be sure to use an approved/certified respirator or equivalent.

Special Remarks on Fire Hazards Vapor may travel considerable distance to source of ignition and flash back.

Special Remarks on Explosion Hazards Not available.

Section 6. Accidental Release Measures

Small Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill and Leak Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Spill Kit Information The following EMD Chemicals Inc. SpillSolv® absorbent is recommended for this product: SX1330 Solvent Treatment Kit

Section 7. Handling and Storage

Handling Keep away from heat, sparks and flame. Keep container closed. Do not get in eyes, on skin, or on clothing. Do not ingest. Avoid breathing vapors or spray mists.

Storage Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes Splash goggles.

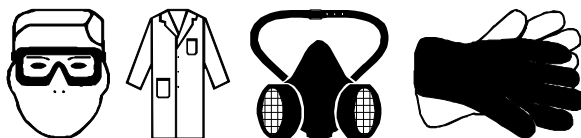
Body Lab coat.

Respiratory Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Hands Gloves.

Feet Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name

O-XYLENE

Exposure Limits

AUVA (Austria, 1995).

PEAK: 880 mg/m³ 4 times per shift, Period: 30 minute(s).

PEAK: 200 ppm 4 times per shift, Period: 30 minute(s).

MAK: 440 mg/m³

MAK: 100 ppm

DK-Arbejdstylsinet (Denmark, 1996). Skin

GV: 109 mg/m³

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GV: 25 ppm

N- Arbeidstilsynet (Norway, 1996). SkinAN: 108 mg/m³

AN: 25 ppm

ACGIH (United States, 1996).STEL: 651 mg/m³

STEL: 150 ppm

TWA: 434 mg/m³

TWA: 100 ppm

NIOSH REL (United States, 1994).STEL: 655 mg/m³

STEL: 150 ppm

TWA: 435 mg/m³ Period: 10 hour(s).

TWA: 100 ppm Period: 10 hour(s).

Section 9. Physical and Chemical Properties

Odor	Aromatic.
Color	Colorless.
Physical State and Appearance	Liquid. (Colorless.)
Molecular Weight	106.18 g/mole
Molecular Formula	C ₈ H ₁₀
pH	Not applicable.
Boiling/Condensation Point	144.49°C (292.1°F)
Melting/Freezing Point	-25.3°C (-13.5°F)
Critical Temperature	357.2°C (675°F)
Specific Gravity	0.88 (Water = 1)
Vapor Pressure	Not available.
Vapor Density	3.7 (Air = 1)
Odor Threshold	0.05 ppm
Evaporation Rate	0.54 compared to (n-BUTYL ACETATE=1)
LogK_{ow}	Not available.
Solubility	Insoluble in water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Not available.
Incompatibility with Various Substances	Highly reactive with oxidizing agents.
Rem/Incompatibility	Not available.

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Hazardous Decomposition Products Not available.

Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

RTECS Number: o-Xylene ZE2450000

Toxicity LD₅₀: Not available.
LC₅₀: Not available.

Chronic Effects on Humans Not available.

Acute Effects on Humans Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator). Hazardous in case of inhalation (lung irritant). Extremely hazardous in case of ingestion. May be fatal if swallowed.

Synergetic Products (Toxicologically) Not available.

Irritancy Draize Test: Not available.

Sensitization Not available.

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).

Teratogenic Effects Not available.

Mutagenic Effects Not available.

Section 12. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number D001 U239

Treatment Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

DOT Classification Proper Shipping Name: XYLENES
Hazard Class: 3
UN number: UN1307
Packing Group: III
RQ: 1000 lbs. (453.6 kg)

TDG Classification Not available.

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**IMO/IMDG
Classification**

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RQ: 1000

**ICAO/IATA
Classification**

Not available.

Section 15. Regulatory Information**U.S. Federal Regulations**

TSCA 8(b) inventory: O-XYLENE
TSCA 8(d) H and S data reporting: O-XYLENE: 1982
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: O-XYLENE
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: O-XYLENE: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard
SARA 313 toxic chemical notification and release reporting: O-XYLENE
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: O-XYLENE
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.

WHMIS (Canada)

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
Class D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: O-XYLENE

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

International Regulations**EINECS**

O-XYLENE 202-422-2

DSCL (EEC)

R10- Flammable.
R20/21- Harmful by inhalation and in contact with skin.
R38- Irritating to skin.

International Lists

Australia (NICNAS): O-XYLENE

Japan (MITI): O-XYLENE

Korea (TCCL): O-XYLENE

Philippines (RA6969): O-XYLENE

China: No products were found.

State Regulations

Pennsylvania RTK: O-XYLENE: (environmental hazard, generic environmental hazard)

Massachusetts RTK: O-XYLENE

New Jersey: O-XYLENE

California prop. 65: No products were found.

Section 16. Other Information

National Fire
Protection
Association
(U.S.A.)



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Revision

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Notice to Reader

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