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CAT NO: 23832448

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XYLENE

Material Safety Data Sheet

Manufacturer: Mallinckrodt Chemical, Inc. Distributor: Fisher Scientific
P.O. Box 800 9999 Veterans Memorial
Paris, Kentucky 40362 Houston, TX 77038
Emergency Phone Number: 314-539-1600

Effective Date: 07-17-91 Supersedes 02-16-89

PRODUCT IDENTIFICATION:

Synonyms: Dimethyl benzene, xylol

Formula CAS No.: 1330-20-7

Molecular Weight: 106.17

Chemical Formula: C₈H₁₀

Hazardous Ingredients:
Xylene isomers p,m,o
benzene (17%)

PRECAUTIONARY MEASURES

DANGER! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED. VAPOR HARMFUL.
FLAMMABLE! AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION.

Keep away from heat, sparks and flame.
Avoid contact with eyes, skin and clothing.
Keep container closed.
Use with adequate ventilation.
Avoid breathing vapor.
Wash thoroughly after handling.

EMERGENCY FIRST AID

Aspiration hazard. If swallowed, do not induce vomiting. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases call a physician.
SEE SECTION 5.

Physical Data

SECTION 1

Appearance: Clear, colorless liquid.

Odor: Characteristic odor.

Solubility: Insoluble in water.

Boiling Point: 137-140 C (279-284 F) Vapor Density (Air=1): 3.7

Melting Point: -25 C (-13 F)

Vapor Pressure (mm Hg): 8 @ 20 C (68 F)

Specific Gravity: 0.86

Evaporation Rate: (Butylacetate = 1)
0.7

NFPA Ratings: Health: 2 Flammability: 3 Reactivity: 0

Fire and Explosion

SECTION 2

Information

Fire:

Flammable. Flashpoint: 26.2 C (79 F) (TCC)(Minimum) Autoignition: ca. 463.8 C (867 F). Flammable limits in air, volume % (1.0-7.0).

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Vapors can flow along surfaces to distant ignition source and flash back.

Reactivity Data

SECTION 3

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition

Products: Involvement in a fire causes formation of carbon

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monoxide and unidentified organic components.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Strong oxidizers, heat and sources of ignition.

Leak/Spill Disposal Information SECTION 4

Ventilate area of leak or spill. Remove all sources of ignition. Handling equipment must be grounded to prevent sparking. Clean-up personnel require protective clothing and respiratory protection from vapors. Dike spill. Contain and recover liquid when possible. Disposal: Collect as hazardous waste and atomize in a suitable RCRA approved combustion chamber, or absorb with vermiculite, dry sand, earth or similar material for disposal as hazardous waste in a RCRA approved facility. Do not flush to sewer! Reportable Quantity (RQ)(CWA/CERCLA): 1000 lbs. Ensure compliance with local, state and federal regulations.

Health Hazard Information SECTION 5

A. Exposure/Health Effects

Inhalation:

Inhalation of vapors maybe irritating to the nose and throat. Inhalation of high concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties which may be delayed in onset. Substernal pain, cough, and hoarseness are also reported. High vapor concentrations are anesthetic and central nervous system depressants.

Ingestion:

Ingestion causes burning sensation in mouth and stomach, nausea, vomiting and salivation. Minute amounts aspirated into the lungs can produce a severe hemorrhagic pneumonitis with severe pulmonary injury or death.

Skin Contact:

Skin contact results in loss of natural oils and often results in a characteristic dermatitis.

Eye Contact:

Vapors can cause irritation. Splashes are toxic to eye tissue. Hemorrhagic inflammatory lesions may develop.

Chronic Exposure:

Chronic inhalation can cause headache, loss of appetite, nervousness and pale skin. Repeated or prolonged skin contact may cause a skin rash. Repeated exposure of the eyes to high concentrations of vapor may cause reversible eye damage.

Aggravation of

Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

B. FIRST AID

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

Aspiration hazard. If swallowed, get immediate medical attention. Vomiting may occur spontaneously, but DO NOT INDUCE! If vomiting occurs, keep head below hips to prevent aspiration into lungs.

Skin Exposure:

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists.

Eye Exposure:

Wash eyes with plenty of water for at least 15 minutes. Lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY

(RTECS, 1986)

Xylene: Oral rat LD50: 4300 mg/kg Inhalation rat LC50: 5000 ppm/4H Irritation eye rabbit: 87 mg mild Skin rabbit 500 mg/24 moderate reproductive effects cited. Ethyl benzene: Oral rat LD50: 3500 mg/Kg Skin rabbit LD50: 17800 mg/Kg mutation data cited reproduction data cited.

Occupational Control Measures

SECTION 6

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Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): 100 ppm
(TWA) 150 ppm (STEL) xylene 100 ppm (TWA) 125 ppm
(STEL) ethyl benzene -ACGIH Threshold Limit Value
(TLV): 100 ppm (TWA) 150 ppm (STEL) xylene 100
ppm (TWA) 125 ppm (STEL) ethyl benzene

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved) If the TLV is exceeded a full facepiece chemical cartridge respirator may be worn up to the maximum use concentration specified by the respirator supplier. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn. Use explosion-proof equipment.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from oxidizing materials. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment. EMPTY CONTAINERS: Can contain explosive vapors. Do Not attempt to clean since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

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Addendum to Material Safety Data Sheet

REGULATORY STATUS

This Addendum Must Not Be
Detached from the MSDS
Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS
must include a copy of this addendum

Hazard Categories for SARA Section 311/312 Reporting

Acute	Chronic	Fire	Pressure	Reactive
X	X	X		

Product or Components of Product:	SARA EHS Sec. 302 RQ	SARA Sec. 313 Chemicals Sec. 302 TPO	SARA Sec. 313 Chemicals Name List	SARA Sec. 313 Chemicals Category	CERCLA Sec. 103 RQ lbs	RCRA Sec. 261.33
	XYLENE					
Xylenes (1330-20-7) 83%	No	No	Yes	No	1000	U239
Ethyl benzene (100-41-4) 17%	No	No	Yes	No	1000	No

SARA Section 302 EHS RQ:
Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPO:
Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the

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Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:
Toxic Substances subject to annual release reporting requirements
listed at 40 CFR 372.65.

CERCLA Sec. 103:
Comprehensive Environmental Response, Compensation and Liability Act (Superfund)
Releases to air, land or water of these hazardous substances which exceed the
Reportable Quantity (RQ) must be reported to the National Response Center,
(800-424-8802); Listed at 40 CFR 302.4

RCRA:
Resource Conservation and Recovery Act, Commercial chemical product wastes
designated as acute hazards or toxic under 40 CFR 261.33

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The information, data and recommendations contained herein were provided
to the Distributor by the manufacturer named on this Material Safety Data Sheet.
Distributor makes no warranty of any kind whatever with respect thereto and
disclaims all liabilities which may arise due to any person or entities'
reliance thereon, including, without limitation, all incidental and
consequential damages, howsoever arising. Distributor reserves the right to
revise this Material Safety Data Sheet as new or as provided to it by the
manufacturer.
