

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-HOUR EMERGENCY PHONE NUMBER: 517-636-4400

Product: XU 35131.00 EXPERIMENTAL RINSE SOLVENT 11100

Product Code: 50856

Effective Date: 03/26/99 Date Printed: 08/18/99 MSD: 005404

The Dow Chemical Company, Midland, MI 48674

Customer Information Center: 800-258-2436

2. COMPOSITION/INFORMATION ON INGREDIENTS

Mesitylene (1,3,5-Trimethylbenzene)	CAS# 000108-67-8	98.5%
Other C9 aromatic isomers		1.5%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

 * Colorless liquid. Aromatic hydrocarbon odor. Combustible.
 * Causes eye irritation. May be harmful if inhaled.
 *
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POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE: May cause moderate eye irritation. May cause slight corneal injury. Vapors may irritate eyes.

SKIN: Short single exposure may cause skin irritation. Prolonged or repeated exposure may cause skin burns. Repeated contact may cause drying or flaking of the skin. May cause more severe response if confined to skin. A single prolonged exposure may result in the material being absorbed in harmful amounts.

INGESTION: Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death. If aspirated (liquid enters the lung), may cause lung damage or even death due to chemical pneumonia.
 INHALATION: Excessive vapor concentrations are attainable and could be hazardous on single exposure. Excessive exposure may cause respiratory irritation and central nervous system depression.

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3. HAZARDS IDENTIFICATION (CONTINUED)

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Excessive exposure may cause liver, kidney, and blood effects.

CANCER INFORMATION: No relevant information found.

TERATOLOGY (BIRTH DEFECTS): Birth defects are unlikely. In laboratory animals however, exposures having no adverse effects on the mother had other harmful effects on the fetus. (mixture containing mesitylene)

REPRODUCTIVE EFFECTS: In animal studies, has been shown not to interfere with reproduction. (mixture containing mesitylene)

4. FIRST AID

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation persists. Wash clothing before reuse. Destroy contaminated shoes.

INGESTION: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn after decontamination. The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASH POINT: 112F (44C)
METHOD USED: SFCC

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5. FIRE FIGHTING MEASURES (CONTINUED)

AUTOIGNITION TEMPERATURE: 1022F

FLAMMABILITY LIMITS

LFL: 0.88% @ 100C

UFL: 6.1% @ 100C

HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: carbon monoxide, carbon dioxide.

OTHER FLAMMABILITY INFORMATION: Dense smoke is produced when product burns. Violent steam generation or eruption may occur upon application of direct water stream. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Flammable mixtures of this product are readily ignited, even by static discharge. Electrically ground all equipment.

EXTINGUISHING MEDIA: Water fog or fine spray, carbon dioxide, dry chemical, foam. General purpose synthetic foams (including AFFF type) or protein foams are preferred if available. Alcohol resistant foams (ATC type) may function.

MEDIA TO BE AVOIDED: Do not use direct water stream.

FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area and deny unnecessary entry. Contain fire water run-off if possible. Fire water run-off, if not contained may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this MSDS. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Use water spray to cool fire exposed containers and fire affected zone until fire is out and the danger of re-ignition has passed. Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source. Do not use direct water stream. May spread fire. Eliminate ignition sources. Stay upwind. Keep out of low lying areas where gases (fumes) can accumulate.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (including fire fighting helmet, coat, pants, boots, and gloves). Avoid contact with this material during

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5. FIRE FIGHTING MEASURES (CONTINUED)

fire fighting operations. If contact is likely, change to full chemical resistant clothing with SCBA. This will not provide sufficient fire protection, consider fighting fire from a remote location. For protective equipment, in post-fire or non-fire clean up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES (See section 15 for Regulatory Information)

PROTECT PEOPLE: Clear non-emergency personnel from area. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard, keep out of sewers.

PROTECT THE ENVIRONMENT: Material may float on water and runoff may create an explosion or fire hazard if ignited. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion.

CLEANUP: Pump with explosion proof equipment. If available, use foam to smother or suppress. Use inert absorbent material such as sand or sawdust. Ventilate area and wash spill site after material pick up is complete.

7. HANDLING AND STORAGE

HANDLING: Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. No smoking, open flames or sources of ignition in handling or storage area. STORAGE: Use of non-sparking or explosion proof equipment may be necessary, depending upon the type of operation. Minimize sources of ignition, such as static buildup, heat, spark or flame. Store below 104F (40C).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Use only with adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Use chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as facemask, gloves, boots, apron, or full body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather goods, such as shoes, belts and watchbands should be removed and destroyed.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved positive-pressure supplied-air respirator.

EXPOSURE GUIDELINE(S): Trimethylbenzene (mesitylene): ACGIH TLV and OSHA PEL are 25 ppm. PELs are in accord with those recommended by OSHA, as in the 1989 revision of PELs.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid
ODOR: Aromatic Hydrocarbon.
VAPOR PRESSURE: 2.49 mmHg @ (25C)
VAPOR DENSITY (Air=1): 4.1
BOILING POINT: 324F (162C)
SOLUBILITY IN WATER: 0.1%
SPECIFIC GRAVITY: 0.864
FREEZING/MELTING POINT: -49C

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

CONDITIONS TO AVOID: Avoid static discharge.

INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with oxidizing materials.

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10. STABILITY AND REACTIVITY (CONTINUED)

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products depend upon temperature, air supply and the presence of other materials.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

SKIN: The dermal LD50 has not been determined.

INGESTION: The oral LD50 for rats is >5000 mg/kg.

MUTAGENICITY: In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative. (mixtures containing mesitylene)

12. ECOLOGICAL INFORMATION (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING:

Bioconcentration potential is moderate (BCF between 100 and 1000 or Log Kow between 3 and 5). Log octanol/water partition coefficient (log Pow) is 3.42. Henry's Law Constant (H) is estimated to be 7.93E-03 atm.m3/mol.

DEGRADATION & TRANSFORMATION:

Biodegradation may occur slowly under aerobic conditions (in the presence of oxygen). Theoretical oxygen demand (ThOD) is calculated to be 3.19 p/p. 5-day biochemical oxygen demand (BOD5) is 0.1 p/p. Biodegradation rate may increase in soil and/or water with acclimation.

ECOTOXICOLOGY:

Material is slightly toxic to aquatic organisms on an acute basis (LC50 between 10 and 100 mg/L in most sensitive species). Acute LC50 for goldfish (Carassius auratus) is 12.5 mg/L. Acute LC50 for water flea Daphnia magna is 50 mg/L. Algae growth inhibition EC50 is 25 mg/L in Scenedesmus subspicatus. Maximum acceptable toxicant concentration (MATC) is 2.8 mg/L in Daphnia magna.

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13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

DISPOSAL: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterization and compliance with applicable laws are the responsibility solely of the waste generator. THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimmer, incinerator or other thermal destruction device.

As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums.

Telephone Dow's Customers Information Center at 800-258-2436 or 517-832-1556 for further details.

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (D.O.T.):

For DOT regulatory information, if required, consult transportation regulations, product shipping papers, or contact your Dow representative.

CANADIAN TDG INFORMATION:

For TDG regulatory information, if required, consult transportation regulations, product shipping papers, or your Dow representative.

15. REGULATORY INFORMATION (Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with

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REGULATORY INFORMATION: (CONTINUED)

See other sections for health and safety information.
numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product
contains no chemical subject to SARA Title III Section 313 supplier
notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the
EPA "Hazard Categories" promulgated under Sections 311 and 312 of the
Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and
is considered, under applicable definitions, to meet the following
categories:

An immediate health hazard
A delayed health hazard
A fire hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be
listed on the TSCA inventory.

This product contains a chemical that requires TSCA export notification.

The chemical(s) is(are):

Mesitylene CAS # 000108-67-8

STATE RIGHT-TO-KNOW: The following product components are cited on
certain state lists as mentioned. Non-listed components may be shown
in the composition section of the MSDS.

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REGULATORY INFORMATION: (CONTINUED)

CHEMICAL NAME CAS NUMBER LIST

METHYLENE CAS 000108-67-8 NJ3

NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication standard, 29 CFR 1910.1200.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) classification for this product is:

B3 - combustible liquid with a flash point between 37.8C and 93.3C
D2B - eye or skin irritant

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are controlled products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14):

COMPONENTS: CAS # Methylene (1,3,5-Trimethylbenzene) CAS# 000108-67-8 98.5% AMOUNT(%w/w)

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16. OTHER INFORMATION

MSDS STATUS: Revised Section 13, Disposal.

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The Information Herein Is Given In Good Faith, But No Warranty,
Express Or Implied, Is Made. Consult The Dow Chemical Company For
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