MATERIAL SAFETY DATA SHEET

CARBOL XYLENE

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Carbol Xylene

SYNONYMS: na

CATALOG CODES: VXZ

MANUFACTURER: Volu-Sol Incorporated

DIVISION: Business Services

ADDRESS: 5095 West 2100 South
Salt Lake City. UT 84120

EMERGENCY PHONE: (800) 535-5053
CHEMTREC PHONE: (800) 424-9300
OTHER CALLS: (801) 974-9474
FAX PHONE: (801) 974-9553
CHEMICAL FAMILY: N/A
CHEMICAL FORMULA: Mixture

PRODUCT USE: Laboratory Reagent

PREPARED BY: ASH

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENT | CAS NO. |
|------------|-----------|
| XYLENE | 1330-20-7 |
| PHENOL | 108-95-2 |

SARA 313 REPORTABLE

PHENOL CAS # 108-95-2; XYLENE 1330-20-7

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Contact with liquid or vapor causes severe burns and possible irreversible eye damage.

ROUTES OF ENTRY: Inhalation/Ingestion/Skin/Eyes

POTENTIAL HEALTH EFFECTS

INHALATION: Inhalation of vapors irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.

INGESTION: Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.

SKIN CONTACT: Irritating due to defatting action on skin. Causes redness, pain, drying and cracking of the skin. EYE CONTACT: Vapors are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain. CHRONIC EXPOSURE: Prolonged or repeated skin contact may produce severe irritation or dermatitis.

AGGRAVATION OF PRE-EXISTING CONDITIONS: Use of

AGGRAVATION OF PRE-EXISTING CONDITIONS: Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

CARCINOGENICITY: Not Listed OSHA: ACGIH: NTP: IARC:

SECTION 4: FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. INGESTION: Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately. SKIN CONTACT: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

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SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR (% BY VOLUME); UPPER: 6.0 LOWER: 1.1

FLASH POINT: 32 deg C (89.60 deg F) Xylene

AUTOIGNITION TEMPERATURE: 527 deg C (980.60 deg F) Xylene **EXTINGUISHING MEDIA:** Dry chemical, alcohol foam or carbon dioxide.

Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

SPECIAL FIRE FIGHTING PROCEDURES: 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.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Above flash point, vaporair mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge. Ethanol burns with a near invisible flame in direct light.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: 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 incompatibles. 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, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS: *ppm = (mg/M³)(24.45)/MW

| All readings in ppm | OSHA PEL'S | | ACGIH | |
|---------------------|------------|---------|-------|------|
| CHEMICAL | TWA | CEILING | TLV | STEL |
| XYLENE | 100 | - | - | - |
| PHENOL | 8 | 15.6 | 8 | 15.6 |

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 exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapor respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

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SECTION 8: CONT'D

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. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

XYLENE Physical State: Color:

Liquid Colorless liquid Aromatic odor

 Odor:
 Aromatic odor

 Vapor Pressure:
 6.72 mm Hg

 Viscosity:
 <32.6 SUS</th>

 Boiling Point:
 138.3 deg C

 Freezing/Melting
 Point:
 -47.4 deg C

Autoignition Temperature: 527 deg C (980.60 deg F)

Flash Point: 32 deg C (89.60 deg F) Explosion Limits, lower: 1.1

Explosion Limits, upper: 6

Solubility in water: Insoluble in water, soluble in alcohol

Specific Gravity/Density: 0.864 Molecular Formula: C8H10 Molecular Weight: 106.07

SECTION 10: STABILITY AND REACTIVITY

STABLE

UNSTABLE

Yes

STABILITY: Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID (STABILITY): Heat, flames, ignition sources

and incompatibles.

INCOMPATIBILITY (MATERIAL TO AVOID): Most metals, metallic oxides, alkalies, amines, cyanides, formaldehyde, and sulfides. Reacts vigorously with strong oxidizers, chromic anhydride, lead perchlorate, perchloric acids.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Hydrogen Chloride, Chloride and Hydrogen. Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

HAZARDOUS POLYMERIZATION: Will not occur. CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

RTECS#:

LD50/LC50:

CAS# 108-95-2: Draize test, rabbit, eye: 5 mg Severe; Draize test, rabbit, skin: 500 mg/24H Severe; Draize test, rabbit, skin: 100mg Mild; Inhalation, mouse: LC50 = 177 mg/m3; Inhalation, mouse: LC50,177 mg/m3/4H; Inhalation, rat: LC50 = 316 mg/m3; Inhalation, rat: LC50 = 316 mg/m3; Inhalation, rat: LC50 = 316 mg/m3/4H; Oral, mouse: LD50 = 270 mg/kg; Oral, rat: LD50 = 317 mg/kg; Oral, rat: LD50 = 512 mg/kg; Skin, rabbit: LD50 = 630mg/kg; Skin, rat: LD50 = 669 mg/kg; Skin, rat: LD50 = 1500 mg/kg.

Carcinogenicity:

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: RTECS#:

Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste

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management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

| US DOT | IMO | IATA | RID/ADR | CANADIAN TDG |
|-----------------------|--------------------|-----------------------|-----------------------|--------------------|
| Shipping | Shipping | Shipping | Shipping | Shipping |
| Name: | Name: | Name: | Name: | Name: |
| XYLENES | XYLENES & | XYLENES | XYLENES | XYLENES & |
| & Phenol | Phenol | & Phenol | & Phenol | Phenol |
| Hazard | Hazard | Hazard | Hazard | Hazard |
| Class: 3 | Class: 3 | Class: 3 | Class: 3 | Class: 3 |
| UN Number: 1307 | UN Number: 1307 | UN Number: 1307 | UN Number: 1307 | UN Number: 1307 |
| Packing | Packing | Packing | Packing | Packing |
| Group: III | Group: III | Group: III | Group: III | Group: III |

SECTION 15: REGULATORY INFORMATION

| _ | 1 |
|---------------------------|--------------------------------------|
| TSCA | CAS# 108-95-2 is listed on the |
| | TSCA inventory. |
| CERCLA/SARA | CAS# 108-95-2: 1000 lb final RQ; |
| SERGE/ VOI III V | 454 kg final RQ |
| Clean Air Act | CAS# 108-95-2 is listed as a |
| Clean Air Act | |
| | hazardous air pollutant (HAP). |
| | This material does not contain |
| | any Class 1 Ozone depletors. |
| | This material does not contain |
| | any Class 2 Ozone depletors. |
| | CAS# 1330-20-7 is also listed. |
| Clean Water Act | CAS# 108-95-2 is listed as a |
| Glouin Water Alex | Hazardous Substance under the |
| | CWA. CAS# 108-95-2 is listed as |
| | |
| | a Priority Pollutant under the |
| | Clean Water Act. CAS# 108-95-2 |
| | is listed as a Toxic Pollutant under |
| | the Clean Water Act |
| OSHA | None of the chemicals in this |
| | product are considered highly |
| | hazardous by OSHA |
| State | None |
| International Regulations | None |
| international Negulations | INOTIC |

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