

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 885
 PART NUMBER: M-885-W (STC)
 PRODUCT NAME: STC
 CAS NUMBER: - - 0
 CHEMICAL NAME: Formaldehyde solution, mixture

SECTION I

MANUFACTURER: Enviro-Chem, Inc.

ADDRESS: P.O. Box 668
 Hobbs, NM 98241

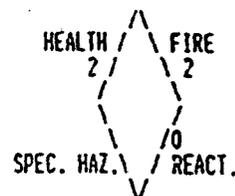
EMERGENCY TELEPHONE NUMBER: (505)393-1917

INFORMATION TELEPHONE NUMBER: (505)397-1917

DATE PREPARED: 12/03/94

HMIS RATINGS:

HEALTH: 2
 FIRE: 2
 REACTIVITY: 0
 PERSONAL PROTECTION: K



SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

CAS NUMBER	HAZARDOUS COMPONENT	NTP	IARC	SUB- PART/2	SARA 313	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED PERCENT
50-00-0	Formaldehyde	?	?	?	Y	.75 ppm	1 ppm	9.25-11
67-56-1	Methanol, or Methyl alcohol	?	?	?	Y	200 ppm	200 ppm	1.25-7.5

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	App 200 F.	SPECIFIC GRAVITY (H2O = 1)	1.03817
VAPOR PRESSURE (mm Hg.)	App 70	MELTING POINT	(176
VAPOR DENSITY (AIR = 1)	1.03	EVAPORATION RATE (Butyl Acetate = 1)	11

SOLUBILITY IN WATER: Complete

APPEARANCE AND ODOR: Clear, Colorless liquid, Pungent odor

OTHER INFORMATION:

Viscosity Units = NI pH = NI
 Freezing Point = App. 15 F. Dry Point = NI

Density (Lb./Gal.) = 8.64581

DANGER

Physical Hazards:-
 Flammable Liquid

Generic Name:- Formaldehyde

UN/NA Number:- UN 1198

DOT Response Number:- 29

DOT Proper Shipping Name:- Formaldehyde, solution, flammable
 (Contains Methanol)

DOT Hazard Class:- 3

DOT Packing Group:- III

DOT/CERCLA EQ:- N/App.

This product contains chemicals which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. The corresponding CAS numbers and percent by weight are listed above.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 110-117 F.

FLAMMABLE LIMITS: LEL: NI

UEL: NI

EXTINGUISHING MEDIA: Use dry chemical, alcohol foam, or Co2. DO NOT USE WATER TO FIGHT FIRE.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (Continued)

SPECIAL FIRE FIGHTING PROCEDURES:

Do not enter fire area without proper protection - see Section V - decomposition products possible.

Fight fire from safe distance / protected location.

Heat may build pressure / rupture closed containers, spreading fire, increasing risk of burns / injuries.

Use water spray / fog for cooling.

Notify authorities if liquid enters sewer / public waters.

UNUSUAL FIRE FIGHTING PROCEDURES:

Releases vapors at normal ambient temperatures. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Flammable vapors may be heavier than air. May travel long distances along the ground before igniting/flashback to vapor source. Diluting with water may not suffice to raise flash point above ambient temperatures. Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air.

SECTION V - REACTIVITY DATA

STABILITY:

Stable under normal conditions

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong Oxidizing agents, such as Hydrogen Peroxide, Bromine, and Chromic Acid.
Strong Alkalies.
Strong Acids.
Heat, sparks, open flames, and elevated temperatures.
Anhydrides.
Isocyanates.
Urea.
Phenol.
Oxides.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Incomplete combustion may release poisonous Carbon Monoxide, Carbon Dioxide, Formaldehyde, and Hydrogen.

HAZARDOUS POLYMERIZATION: May occur at temperature less than 144 F.

SECTION VI - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY:

Inhalation:-

Vapors and mists are extremely irritating to the nose, throat, and mucous membranes.

Eye contact:- Primary Route

Vapors and mist causes tearing and severe irritation. Liquid causes burns.

Skin absorption:-

Although no appropriate human or animal health effects data are known to exist, this product is expected to absorb through the skin.

Skin irritation:-

Contact with the liquid causes drying, scaling, and cracking. Prolonged and repeated contact causes hardening or tanning effect.

Ingestion:-

Vapors, mists, and liquid are extremely irritating to the mouth, throat, and stomach.

HEALTH HAZARDS (ACUTE AND CHRONIC):

This material is considered to be extremely irritant to humans via all routes of entry.

SIGNS AND SYMPTOMS OF EXPOSURE:

In Contact:-

Contact with the liquid causes drying, scaling, and cracking. Prolonged and repeated contact causes hardening or tanning effect. May cause allergic dermatitis. May be absorbed through the skin.

Eye Contact:-

Vapors and mist causes tearing and severe irritation. Liquid causes burns.

Ingestion:-

Vapors, mists, and liquid are extremely irritating to the mouth, throat, and stomach. Swallowing the liquid inflames the tissues, causes severe abdominal pain, nausea, vomiting, and possible loss of consciousness. Swallowing large quantities can cause blindness and death.

Inhalation:-

SECTION VI - HEALTH HAZARD DATA (Continued)

Vapors and mists are extremely irritating to the nose, throat, and mucous membranes. Bronchitis, pulmonary edema, and chemical pneumonitis may occur. Irritation, coughing, chest pains, and difficulty in breathing may occur with brief exposure while prolonged exposure may result in more severe irritation and tissue damage.

Chronic Effects of Overexposure:-

Repeated or prolonged contact with skin may cause allergic dermatitis or sensitization.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:-

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Eye Contact:-

In case of eye contact, immediately rinse with clean water for 20 to 30 minutes. Retract eyelids often. Obtain emergency medical attention.

Skin Contact:-

Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Obtain emergency medical attention.

Ingestion:-

If large quantity swallowed, give lukewarm water (pint) if victim is completely conscious and alert. If conscious, immediately induce vomiting by giving 2 large glasses of water, and sticking finger down the throat. Obtain emergency medical attention immediately. Gastric lavage recommended. DO NOT GIVE ANYTHING TO AN UNCONSCIOUS OR CONVULSING PERSON.

Emergency Medical Treatment Procedures:-

Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Continue to rinse eyes with clean water for 20 to 30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Treat burns or allergic reactions conventionally after decontamination. Induce vomiting.

OTHER HEALTH WARNINGS:

Toxicity data:-

Oral:- Rat LD50 = 800 mg/kg.

Dermal:- Rabbit LD50 = 270 mg/kg.

Inhalation:- Rat LCLO = 250 ppm/4 Hr., Human TCLO = 17 mg/m³/30 minutes. (Toxic and systemic irritant effects)

Carcinogenicity:- Formaldehyde is listed on the NTP Third Annual Report on Carcinogens and its IARC Carcinogenic Determination is animal positive and human indefinite. Formaldehyde is not currently regulated as a carcinogen by OSHA. A mortality study of long-term employees of a formaldehyde producer showed no evidence that formaldehyde causes cancer or other serious chronic health effects.

Other Data:- Formaldehyde is mutagenic in laboratory tests, but not in laboratory animals at inhalation exposures of up to 25 ppm. Rats exposed to 5 ppm. of formaldehyde for 24 months developed nasal cancer.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Equip responders with proper protection (see Section VIII).

SMALL SPILL:-

Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material, and transfer to hood.

LARGE SPILL:-

Provide adequate ventilation. Eliminate all ignition sources (flares, flames (including pilot lights) and electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material, and placed in covered containers, if possible, then labeled for disposal.

Prevent run-off into sewers, streams or other bodies of water. If run-off occurs, notify proper authorities, as required, that a spill has occurred.

WASTE DISPOSAL METHOD:

Comply with Federal / State / Local regulations for disposal. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

For transport, handling, and storage, use polyethylene, plastic, lined steel or stainless steel.

Use good occupational hygiene practices.

Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All standard precautions given in the data sheet must be observed.

Store drums with bands closed in upright position.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE (Continued)

OTHER PRECAUTIONS:

Wash thoroughly after handling.
Do not get in eyes, on skin, or clothing.
Do not breathe dust, vapor, mist, or gas.
Keep container closed when not in use.
Empty container may contain hazardous residues.

SECTION VIII - CONTROL MEASURES

VENTILATION REQUIREMENTS:

Either local exhaust or general room ventilation is usually required.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory Protection:-

If exposure can exceed the PEL/TLV, use only NIOSH/MSHA approved air-purifying or supplied air respirator operated in a positive pressure mode per the NIOSH/OSHA 1981 Occupational Health Guidelines for chemical hazard.

Eye Protection:-

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Contact lenses must not be worn.

Skin Protection:-

Impervious protective suit with gloves, boots, and full head and face protection must be worn. The equipment must be cleaned thoroughly after each use.

Other Hygienic Practices:-

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities. Shower after work using plenty of soap and water.

Other Work Practices:-

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Promptly remove soiled clothing / wash thoroughly before reuse.

SECTION IX - ADDITIONAL INFORMATION

ADDITIONAL MANUFACTURER WARNINGS: For Industrial Use Only. Keep out of reach of children.

OTHER PRECAUTIONS AND COMMENTS:

Disclaimers:-

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness or results to be obtained from the use thereof.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of, or in any way connected with the handling, storage, use, or disposal of the product.

This MSDS was prepared, and is to be used, only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1200).
