

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME: SURFACE CURING AGENT  
PRODUCT CLASS: STYRENE MONOMER SOLUTION, INHIBITED.  
PRODUCT NUMBER : 01007

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## SECTION I - MANUFACTURER IDENTIFICATION

ENVIRONMENTAL TECHNOLOGY, INC.  
300 SOUTH BAY DEPOT ROAD  
FIELDS LANDING, CA 95537

### DEPARTMENT OF TRANSPORTATION INFORMATION:

PROPER SHIPPING NAME: CONSUMER COMMODITY  
PROPER CLASS: ORM-D.

### PHONE NUMBER FOR INFORMATION:

(707) 443-9323

### TRANSPORTATION EMERGENCY PHONE NUMBER:

CHEMTREC (800) 424-9300

### DATE PREPARED:

January 12, 2011

### PREPARED BY:

TECHNICAL DIRECTOR

**HMIS HAZARD RATINGS:** HEALTH: 3 FIRE: 3 REACTIVITY: 1 PERSONAL PROTECTION: X

N.A. = Not Applicable N.D. = Not Determined (Not Available) N.E. = Not Established

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Ingredients which are hazardous chemicals, according to OSHA ( 29 CFR 1910.1200 ), are listed at 1% or above. Carcinogen are listed when at 0.1% or greater. These ingredients are subject to SARA, Title III, sections 311 and 312.

ACGIH OSHA, 1910.1000 Table Z-2 (11/94)

Chemical Name	CAS #	Wt. %	TLV	PEL-TWA	Ceiling	Peak	Duration	Vapor Pressure
1). styrene	100-42-5	90-95	50 PPM	100 PPM	200 PPM	600 PPM	5 Min./ 3 Hr.	4.3 mm Hg @68°F

**Notes:** styrene has been given a "Skin" Designation by ACGIH which requires that the substance exposure to the skin be prevented or reduced to the extent necessary with personal protective equipment. Styrene is a Toxic Chemical subject to reporting requirements of SARA section 313 Title III and 40 CFR Part 372. Styrene (RQ = 1000 LBS) is a Hazardous Substance subject to CERCLA, and SARA section 304 spill reporting.

Ingredients known to the State of California to cause cancer, or birth defects, or reproductive harm, (Proposition 65):. NONE.

**CANCER INFORMATION:** See Section VI, CARCINOGENICITY.

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

MELTING POINT °F: N.D.

BOILING POINT : 293°F (145°C)

APPEARANCE AND ODOR : A clear solution with sweet aromatic solvent odor.

SOLUBILITY IN WATER : Negligible.

EVAPORATION RATE (BUTYL ACETATE =1) : <1, Slower than butyl acetate.

VOC GRAMS/LITER : N.D.

VOC LBS/GAL: N.D.

VAPOR DENSITY (AIR =1): 3.6, Heavier than air.

VAPOR PRESSURE(mm Hg @68°F): 4.3

PERCENT VOLATILE BY VOLUME: N.D. %

PERCENT VOLATILE BY WEIGHT: N.D. %

SPECIFIC GRAVITY: 0.95 g/cc

DENSITY: 7.91 LBS./ GAL.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): 88°F, (TCC).

FLAMMABLE LIMITS IN AIR BY VOLUME: LEL: 1.1 UEL: 6.1

AUTO IGNITION TEMPERATURE, °F: N.D.

EXTINGUISHING MEDIA: X FOAM, X ALCOHOL FOAM, X CO<sub>2</sub>, X DRY CHEMICAL, X WATER SPRAY, X OTHER ( HALON).

**SPECIAL FIRE FIGHTING PROCEDURES :** If product is present in the fire and the threat of decomposition exist, wear self contained positive pressure breathing apparatus with full face piece. Water spray may be ineffective, water spray may be used to cool containers exposed to heat or fire to prevent ruptures due to pressure build up.

**UNUSUAL FIRE AND EXPLOSION HAZARDS :** Dense smoke emitted when burned without sufficient oxygen. Closed containers may rupture due to build up of pressure when exposed to extreme heat or fire.

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### **SECTION V - REACTIVITY DATA**

STABILITY:    UNSTABLE   X   STABLE

CONDITIONS TO AVOID: Oxidizing chemicals, acids, caustics, and metal halides (salts). Open flames and hot surfaces.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Carbon monoxide, carbon dioxide.

HAZARDOUS POLYMERIZATION   X   MAY OCCUR    MAY NOT OCCUR.

CONDITIONS TO AVOID UNCONTROLLED POLYMERIZATION: Store below 90°F, (32°C). Keep out of direct sunlight.

The preferred storage temperature below 78°F( 26°C). Do not contaminate with other ingredients or catalyst. Use a new dropper to transfer material.

### **SECTION VI - HEALTH HAZARD DATA**

ROUTE(S) OF ENTRY : INHALATION, SKIN CONTACT, EYE CONTACT, INGESTION.

#### WARNING STATEMENTS:

VAPORS HARMFUL. USE ONLY IN ADEQUATE VENTILATED AREAS. KEEP AWAY FROM CHILDREN. DO NOT TAKE INTERNALLY. AVOID CONTACT WITH EYES AND SKIN. WILL CAUSE EYE AND MUCOUS MEMBRANE IRRITATION. MAY CAUSE SKIN IRRITATION. WASH WITH WATER AFTER USE.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE :

INHALATION: Dizziness, headache, nausea, difficulty breathing, weakness, fatigue, confusion, and unconsciousness.

SKIN CONTACT: Irritation, dryness, and flaking.

EYE CONTACT: Irritation, redness, or eye watering.

INGESTION: Gastrointestinal irritation, nausea, diarrhea, dizziness, vomiting, and unconsciousness. Aspiration (liquid enters the lungs) of vomit may be rapidly absorbed through the lungs and result in injury to other body systems, which can be fatal.

#### EMERGENCY AND FIRST AID PROCEDURES :

Never give anything by mouth to an unconscious person.

EYE CONTACT: Remove any contact lenses and flush for 15 minutes with potable water or sterile eye buffer. Hold eyelids open to assure complete flushing. CONTACT A PHYSICIAN IMMEDIATELY.

SKIN CONTACT: Wash area thoroughly with soap and water. If irritation persist, contact a physician.

INHALATION: Leave the area to obtain fresh air. If breathing has stopped, give artificial respiration then oxygen if needed. If difficulty breathing or other symptoms continue, CALL A PHYSICIAN IMMEDIATELY

INGESTION: DO NOT INDUCE VOMITING. CALL A PHYSICIAN IMMEDIATELY, or the Poison Control Center.

IF ANY SYMPTOMS PERSIST CONTACT A PHYSICIAN

#### HEALTH HAZARD, ACUTE :

INHALATION: Inhalation of vapors may cause irritation to the respiratory tract. May affect the brain and the central nervous system causing: dizziness, headache, nausea, difficulty breathing, weakness, fatigue, hearing loss, unconsciousness and even respiratory arrest.

SKIN CONTACT: Irritation, flaking, and dryness.

EYE CONTACT: Primary irritant: may cause inflammation of the conjunctiva, and slight corneal injury, damage reversible with prompt first aid.

INGESTION: Gastrointestinal irritation, nausea, diarrhea, dizziness, vomiting, and unconsciousness. Aspiration (liquid enters the lungs) of vomit may be rapidly absorbed through the lungs and result in injury to other body systems, which can be fatal.

HEALTH HAZARDS, CHRONIC, (TARGET ORGANS) : Possible damage to: liver, kidney, and central nervous system. depression. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and central nervous system damage.

CARCINOGENICITY : Styrene has been found to produce lung tumors in mice and cause changes in the genetic material of laboratory organisms. Whether it does so in humans is not known. For hazard communication purposes under

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OSHA standard 29 CFR part 1910.1200, styrene has been listed as a potential carcinogen by IARC. One of the products ingredients is found on the following lists.

NTP: No      IARC: Yes      Federal OSHA: Yes

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE** : Persons with pre-existing lung disorders may be more susceptible to irritating effects. Exposure may aggravate pre-existing disorders of these organs: kidney damage; liver; central nervous system; skin; and eyes.

### **SECTION VII -SPILL, LEAK, AND DISPOSAL PROCEDURES**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED** : Evacuate area. Eliminate sources of ignition. Use Protective equipment and respiratory protection as stated in Section VIII. Contain liquid or contaminated wash water spills using a barrier of inert material such as sand or by diking the area. Absorb spilled or contaminated wash water with an inert material. Scoop or shovel absorbed material in to containers for disposal. Prevent spilled product or contaminated wash water from entering drinking water supplies, streams, or sewers. Certain releases of any substance to the environment are prohibited by law and may require reporting to an environmental agency.

**WASTE DISPOSAL METHOD** : No disposal method should be used which would pose an environmental or human health threat including any which would contaminate ground or surface waters. Dispose of waste in accordance with local, state, and federal regulations. **Canada**: Dispose of waste in accordance with local, provincial and national regulations.

### **SECTION VIII- PRECAUTIONS FOR SAFE HANDLING AND USE :**

**PRECAUTIONS** : FLAMMABLE VAPORS, ELIMINATE IGNITION SOURCES,( FLAMES, ELECTRIC MOTORS, PILOT LIGHTS, STOVES, HEATERS), VAPORS MAY TRAVEL SOME DISTANCE ALONG THE GROUND, OR ON A SURFACE TO AN IGNITION SOURCE. USE ONLY IN VENTILATED AREAS. Maintain atmospheric levels below the exposure guidelines. To avoid breathing vapors during application and drying process use this product outdoors, if possible. If you must use it indoors use local exhaust ventilation or other means to provide fresh air, opening windows and doors to achieve cross-ventilation. DO NOT USE IN CONFINED OR POORLY VENTILATED AREAS. CONCENTRATED VAPORS ARE HEAVIER THEN AIR AND WILL COLLECT IN LOW AREAS. Close container after use, and store in upright position in a cool, dry, and well ventilated area.

**OTHER PRECAUTIONS** : "Empty" containers contain product residue (liquid and/ or vapor) and can be dangerous. Dust from sanding dry films should be treated as nuisance dust, TLV of 10 mg./Cu. meter.

**MECHANICAL (GENERAL) VENTILATION** : Provide sufficient explosion proof mechanical ventilation to remove vapors to levels below the exposure guidelines. The need for fume hoods, local exhaust, or spray booths should be considered for commercial operations.

**SPECIAL VENTILATION** : Local exhaust if necessary to ventilate spill area.

**RESPIRATORY PROTECTION** : Maintain atmospheric levels below the exposure guidelines. Use an approved air purifying ORGANIC VAPOR RESPIRATOR, (type NIOSH/MSHA TC-23C), or positive pressure self-contained breathing apparatus, SCBA, when respiratory protection is required by atmospheric levels exceeding the exposure guidelines.

**PROTECTIVE GLOVES** : Solvent impervious rubber gloves are recommended. Avoid contact with skin.

**EYE PROTECTION** : Avoid contact with eyes. Approved safety glasses with splash guards or goggles are required.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT** : Impervious clothing, foot ware, and synthetic apron to prevent skin contact are recommended. Provide nearby safety showers and eye washing (preferably full face) facilities.

**WORK/HYGIENIC PRACTICES** : Wash thoroughly after handling. Clean up spills. Wash contaminated clothes before reuse. Launder work clothes separate from family clothes. Check protective equipment and clothing before use.

**Disclaimer** : All information, recommendations, and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable. However, it is the user's responsibility to determine the safety, toxicity, and suitability for his or her own use of the product described herein. Since the actual use by others is beyond Environmental Technology, Inc.'s control, no guarantee, expressed or implied, is made by Environmental Technology, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product.