# MATERIAL SAFETY DATA SHEET

# **Finished Product**



**Date-Issued:** 01/18/2003 **MSDS Ref. No:** 2510-N/P **Date-Revised:** 02/01/2006

**Revision No:** 4

# **Trace Technologies Conformal Coating Remover**

#### 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Trace Technologies Conformal Coating Remover

PRODUCT DESCRIPTION: Conformal Coating Remover

2. COMPOSITION / INFORMATION ON INGREDIENTS

PRODUCT CODE: 2510/CAN/EUR-N, P

# **MANUFACTURER**

# 24 HR. EMERGENCY TELEPHONE

**NUMBERS** 

Techspray, L.P. CHEMTREC (US Transportation): (800) 424 - 9300 1001 N.W. 1st Street CANUTEC (Canadian Transportation): (613) 996 - 6666

P.O. Box 949 Emergency Phone: (800) 858 - 4043

Amarillo, TX 79107 **Contact:** Chemtrec

Product Stewardship: 1-800-858-4043

<u>Chemical Name</u>	<b>Content</b>	<u>CAS</u>	<b>EINECS</b>
Tetrahydrofuran	> 99	109-99- 9	203-726- 8
ВНТ	< 0.1	128-37- 0	

# EEC LABEL SYMBOL AND CLASSIFICATION



R11 - Highly flammable.

EEC Highly flammable - "F"

R19 - May form explosive peroxides.



R23/25 - Toxic by inhalation and if swallowed.

EEC Toxic - "T"



R 36/37 - Irritating to eyes and respiratory system

EEC Irritant - "Xi"

## 3. HAZARDS IDENTIFICATION

#### **EMERGENCY OVERVIEW**

PHYSICAL APPEARANCE: Transparent, colorless liquid.

**IMMEDIATE CONCERNS:** Extremely flammable liquid and vapor.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Substance causes substantial eye irritation.

**SKIN:** Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin imitation and dermetitis (resh)

irritation and dermatitis (rash).

**SKIN ABSORPTION:** Skin absorption can occur.

**INGESTION:** Substance may be harmful if swallowed.

**INHALATION:** High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and possibly death with longer exposure. Keep people away from such vapors without self-

contained breathing apparatus.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Symptoms of overexposure include: stinging, tearing, redness and pain.

**SKIN:** Prolonged exposure causes redness, pain, drying and cracking of the skin.

**INGESTION:** For large amounts; abdominal pain, nausea and vomiting.

**INHALATION:** High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

**ACUTE TOXICITY:** Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result.

**CARCINOGENICITY: NOT listed** 

#### REPRODUCTIVE TOXICITY

**REPRODUCTIVE EFFECTS:** NOT listed

**TERATOGENIC EFFECTS:** Not considered a developmental toxicant.

**TARGET ORGAN STATEMENT:** Prolonged or repeated overexposure may cause central nervous system, kidney, liver, and lung damage.

# 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.

**INGESTION:** If swallowed, gently wipe or rinse the inside of the mouth with water. DO NOT induce vomiting. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Immediately contact a poison control center, emergency room or physician as further treatment may be necessary.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

## 5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: -14.4°C (6°F)TAG CC

**FLAMMABLE LIMITS:** 2.0 to 11.8

**GENERAL HAZARD:** Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point.

**EXTINGUISHING MEDIA:** Water, foam, dry chemical, carbon dioxide.

**HAZARDOUS COMBUSTION PRODUCTS:** Smoke, fumes and oxides of carbon.

**EXPLOSION HAZARDS:** Vapors may form explosive mixture with air.

**FIRE FIGHTING PROCEDURES:** Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

**FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None Expected.

# 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Contain spill with dike to prevent entry into sewers.

**LARGE SPILL:** If this material is released into a work area, evacuate the area immediately.

**GENERAL PROCEDURES:** Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including vapors, have been removed thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth, gravel, etc. as necessary and place in closed containers for disposal.

**SPECIAL PROTECTIVE EQUIPMENT:** Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area. See Section 8 for details.

**COMMENTS:** Remove all sources of ignition. Use spark-proof tools.

# 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Wash thoroughly after handling. Use only in a well ventilated area. Store in a cool dry place.

**HANDLING:** Ground and bond containers when transferring material.

**STORAGE:** Keep away from heat and flame.

STORAGE PRESSURE: Store at local atomspheric pressure.

**STORAGE TEMPERATURE:** Store in a cool place below (120) F (49) C.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **EXPOSURE GUIDELINES:**

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS					
Chemical Name		OSHA PEL		<b>ACGIH TLV</b>		Supplier OEL	
		<u>ppm</u>	$\underline{mg/m}^3$	<u>ppm</u>	<u>mg/m</u> <sup>3</sup>	<u>ppm</u>	$mg/m^3$
Tetrahydrofuran	TWA	200 ppm <sup>[1]</sup>	250 mg/ m3	200 ppm	590 mg/ m3	NL ppm	NL mg/ m3
	STEL	590 ppm	735 mg/ m3	250 ppm	737 mg/ m3	NL ppm	NL mg/ m3
ВНТ	TWA	10 mg/ m3		10 mg/ m3			

#### **OSHA TABLE COMMENTS:**

1. NL = Not Listed

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

#### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear safety glasses with side shields (or goggles) and a face shield.

**SKIN:** The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Viton, Solvex, Butyl, Buna, Neoprene.

**RESPIRATORY:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**WORK HYGIENIC PRACTICES:** Wash hands before eating and wash before reuse.

**OTHER USE PRECAUTIONS:** Emergency shower and eyewash facility should be in close proximity.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

**ODOR:** Aromatic odor.

**APPEARANCE:** Clear, Colorless liquid

**COLOR:** Colorless

**PERCENT VOLATILE:** 100 at 20°C (68°F) **VAPOR PRESSURE:** 130 mmHg at 20°C

VAPOR DENSITY: 2.5 (Air=1) BOILING POINT: to 65°C (149°F) SOLUBILITY IN WATER: Negligible

**SPECIFIC GRAVITY:** 0.886 to .891 at 25°C **(VOC):** 886 to 891 g/L (non-exempt VOC)

# 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** Stable. However, may decompose if heated.

**STABILITY:** Stable.

POLYMERIZATION: Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of Carbon (CO and CO2) may form when heated to

decomposition.

**INCOMPATIBLE MATERIALS:** Oxidizing agents, alkalies and bases.

# 11. TOXICOLOGICAL INFORMATION

**INGREDIENT(S)** 

ORAL LD 50 (rat) DERMAL LD 50 (rabbit) INHALATION LC 50 (rat)

Tetrahydrofuran

1650 - mg/kg

21000 - ppm

**ACUTE** 

**EYES:** Moderately to severely irritating

**DERMAL LD**<sub>50</sub>: Mildly to moderately irritating.

**ORAL LD<sub>50</sub>:** 2500 mg/kg (rat)

**INHALATION LC**<sub>50</sub>: 21000 ppm, 3-hour

**EYE EFFECTS:** Mixture is a moderate eye irritant.

**SKIN EFFECTS:** Causes irritation to skin.

**CARCINOGENICITY:** 

IARC: NOT listed

Trace Technologies Conformal Coating Remover

NTP: NOT listed OSHA: NOT listed

**REPRODUCTIVE EFFECTS:** Not Established

**TERATOGENIC EFFECTS:** Test results indicate this compound/mixture is not teratogenic.

# 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** There is limited information available on the environmental fate and effects of this material. The primary environmental concern for release is the impact on aquatic and terrestrial species. Due care should be taken to avoid the accidental release of this material into the environment.

# 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Federal, State, and Local laws governing disposal of materials can differ. Ensure compliance with proper authorities before disposal.

**FOR LARGE SPILLS:** Contaminated sawdust, vermiculite, or porous surfaces must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted hazardous waste management facility.

**GENERAL COMMENTS:** Dispose of in a manner consistent with federal, state, and local regulations.

# 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)** 

PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D

UN/NA NUMBER: N/A PACKING GROUP: N/A

ROAD AND RAIL (ADR/RID):

**KEMLER NUMBER: UN2056** 

**HAZARD CLASS: 3** 

AIR (ICAO/IATA)

**PROPER SHIPPING NAME:** Hazradous materials in excepted quantities of Class 3

**PACKING GROUP: N/A** 

**NOTE:** Domestic shipments only. When shipping International contact TechSpray shipping department.

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Tetrahydrofuran

UN/NA NUMBER: UN2056

PRIMARY HAZARD CLASS/DIVISION: 3

PACKING GROUP: II NOTE: Page 3230

#### 15. REGULATORY INFORMATION

#### **UNITED STATES**

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: IMMEDIATE / DELAYED

FIRE: YES PRESSURE GENERATING: NO REACTIVITY: NO ACUTE: YES

**CHRONIC:** NO

313 REPORTABLE INGREDIENTS: Not considered a SARA 313 "Toxic Chemical".

**TITLE III NOTES:** Not listed as an Extremely Hazardous Substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** Tetrahydrofuran (CAS# 109-99-9)

CERCLA RQ: 1000 Lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA REGULATORY:** This product is listed on the TSCA Inventory.

**RCRA STATUS:** U213

**OSHA HAZARD COMM. RULE:** Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

**29 CFR 1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

#### **CANADA**

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components of this product are listed on the Canadian DSL.

#### **EUROPEAN COMMUNITY**

# EEC LABEL SYMBOL AND CLASSIFICATION



R11 - Highly flammable.

EEC Highly flammable - "F"

R19 - May form explosive peroxides.



R23/25 - Toxic by inhalation and if swallowed.

EEC Toxic - "T"



R 36/37 - Irritating to eyes and respiratory system

EEC Irritant - "Xi"

**CALIFORNIA PROPOSITION 65:** This product does not contain any chemicals known to the State of California to cause cancer.

# STATES WITH SPECIAL REQUIREMENTS

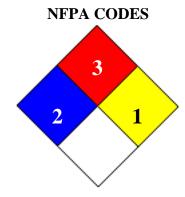
# **Chemical Name**

Tetrahydrofuran

# 16. OTHER INFORMATION

**APPROVED BY:** Pierce A. Pillon **TITLE:** Chemist

**REVISION SUMMARY** Revision #: 4 This MSDS replaces the December 15, 2004 MSDS. Any changes in information are as follows: In Section 9 Specific Gravity (From) Specific Gravity (To) Specific Gravity (Unit) Specific Gravity °C VOC (From) VOC (To)



**DATA SOURCES:** Code of Federal Regulations (CFR) The Sigma-Aldrich Library of Regulatory and Safety Data OSHA Hazard Communication Standard (29CFR1910.1200) Various Federal, State and Local Regulations

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