MATERIAL SAFETY DATA SHEET

Finished Product

Date-Issued : 12/30/2002
MSDS Ref. No : 1679-B
Date-Revised : 01/17/2006
Revision No : 3

Envi-Ro-Tech 1679

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Envi-Ro-Tech 1679
GENERAL USE: General Purpose Flux Remover
PRODUCT DESCRIPTION: Light Duty Defluxer
PRODUCT CODE: 1679/CAN/EUR-PT

MANUFACTURER

Techspray, L.P.
1001 N.W. 1st Street
P.O. Box 949
Amarillo, TX 79107
Contact: Chemtrec
Product Stewardship: 1-800-858-4043

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) : (800) 424 - 9300
CANUTEC (Canadian Transportation) : (613) 996 - 6666
Emergency Phone : (800) 858 - 4043

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Content	CAS	EINECS
2-Propanol	40 - 60	67-63-0	200-661-0
Ethanol	40 - 60	64-17-5	200-578-6
Methanol	5 - 10	67-56-1	200-659-6

EEC LABEL SYMBOL AND CLASSIFICATION

R11 - Highly flammable.

EEC Highly flammable - "F"

R23/25 - Toxic by inhalation and if swallowed.

EEC Toxic - "T"

R63 - Possible risk of harm to the unborn child.

R52 - Harmful to aquatic organisms.

EEC Environment - "N"

---

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, Colorless, Volatile Liquid

IMMEDIATE CONCERNS: Flammable liquid and vapor.

POTENTIAL HEALTH EFFECTS

EYES: Moderately irritating to the eyes.

SKIN: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

SKIN ABSORPTION: Skin absorption can occur.

INGESTION: This product is toxic by ingestion. Ingestion may cause irritation of the digestive tract. Nausea and vomiting will most likely occur.

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.

---

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

INGESTION: Do not induce vomiting. Give milk or water. Get immediate medical attention immediately.

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: 11.7°C (53°F)TAG CC

FLAMMABLE LIMITS: 2.0 to 12.0

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

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

EXPLOSION HAZARDS: Vapors, when present in the flammable range (listed above), especially in a confined or poorly ventilated space, can be ignited with a flame or high intesity source of heat.

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.

---

6. ACCIDENTAL RELEASE MEASURES

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: Use spark proof tools and explosion proof equipment.

HANDLING: Ground and bond containers when transferring material.

---

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS					
Chemical Name	**OSHA PEL**		**ACGIH TLV**		**Supplier OEL**	
	ppm	**mg/m^3**	**ppm**	**mg/m^3**	**ppm**	**mg/m^3**

2-Propanol	**TWA**	400 ppm	980 mg/m3	400 ppm	983 mg/m3	NL [1]	NL
	STEL	500 ppm	1225 mg/m3	500 ppm	1230 mg/m3	NL	NL
Ethanol	**TWA**	1000 ppm	1900 mg/m3	1000 ppm	1880 mg/m3	NL	NL
	STEL	NL ppm	NL mg/m3	NL ppm	NL mg/m3	NL	NL
Methanol	**TWA**	S 200 ppm[2]	260 mg/m3	S 200 ppm	262 mg/m3	NL ppm	NL mg/m3
	STEL	250 ppm	310 mg/m3	250 ppm	328 mg/m3	NL ppm	NL

OSHA TABLE COMMENTS:
1. NL = Not Listed
2. S = Skin

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: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

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: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
ODOR: Alcohol odor
APPEARANCE: Clear, Colorless liquid
pH: Neutral
PERCENT VOLATILE: 100
VAPOR PRESSURE: 33 mmHg at 20°C
VAPOR DENSITY: 2.1 (Air=1)
BOILING POINT: to 80°C (176°F)
FREEZING POINT: to -88°C
SOLUBILITY IN WATER: Moderate
EVAPORATION RATE: > 1 to 1.7 (n-Butyl Acetate=1)
(VOC): 750 to 800 g/L (non-exempt VOC)

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Heat, flames, ignition sources, and incompatables.

STABILITY: Stable under normal conditions.

POLYMERIZATION: Will not occur.

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

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

---

11. TOXICOLOGICAL INFORMATION

INGREDIENT(S)	ORAL LD $_{50}$ (rat)	DERMAL LD $_{50}$ (rabbit)	INHALATION LC $_{50}$ (rat)
Methanol	6.2 - 12.98 mg/kg	16 - g/kg	64000 - ppm

ACUTE

DERMAL LD_{50}: 12800 mg/kg (rabbit)

ORAL LD_{50}: 5045 mg/kg (rat)

INHALATION LC_{50}: 16000 ppm, 8-hour

EYE EFFECTS: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate

SKIN EFFECTS: Draize test, rabbit, skin: 500 mg Mild.

CARCINOGENICITY:

IARC: NOT listed

NTP: NOT listed

OSHA: NOT listed

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

---

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Isopropyl alcohol has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge.

---

13. DISPOSAL CONSIDERATIONS

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

---

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME: CONSUMER COMMODITY
PRIMARY HAZARD CLASS/DIVISION: ORM-D

ROAD AND RAIL (ADR/RID):
KEMLER NUMBER: UN1987
HAZARD CLASS: 3

AIR (ICAO/IATA)
PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D
UN/NA NUMBER: ID8000
PRIMARY HAZARD CLASS/DIVISION: 9

VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: Alcohols N.O.S.
TECHNICAL NAME: (ISOPROPANOL, ETHANOL)
UN/NA NUMBER: UN1987
PRIMARY HAZARD CLASS/DIVISION: 3
PACKING GROUP: II

---

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: YES **ACUTE:** YES **CHRONIC:** YES

313 REPORTABLE INGREDIENTS: 2-propanol (CAS #67-63-0)

CANADA

WHMIS CLASS: Class B2 - Flammable Liquids. Class D2B - Toxic Materials.

CANADA INGREDIENT DISCLOSURE LIST: CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.

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"

R23/25 - Toxic by inhalation and if swallowed.

EEC Toxic - "T"

R63 - Possible risk of harm to the unborn child.

R52 - Harmful to aquatic organisms.

EEC Environment - "N"

---

16. OTHER INFORMATION

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

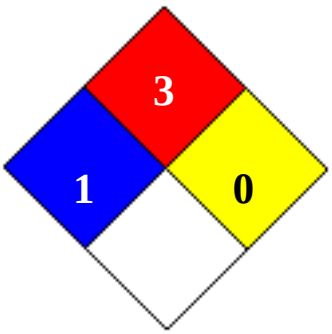
PREPARED BY: Steve Cook

REVISION SUMMARY Revision #: 3 This MSDS replaces the December 03, 2004 MSDS. Any changes in information are as follows: In Section 14 DOT Proper Shipping Name DOT Primary Hazard Class/Division IMO Proper Shipping Name ADR/RID Hazard Class ADR/RID HI - Kemler Number AIR Proper Shipping Name IMOTECH Not Found IMO Primary Hazard Class/Division IMO UN/NA Number IMDG Note

HMIS RATING

HEALTH:	**2**
FLAMMABILITY:	**3**
PHYSICAL HAZARD:	**1**
PERSONAL PROTECTION:	

NFPA CODES



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

MANUFACTURER DISCLAIMER: To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, L.P., or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.