MATERIAL SAFETY DATA SHEET

Finished Product

Date-Issued: 01/17/2003
MSDS Ref. No: 2506-N
Date-Revised: 06/08/2004
Revision No: 1

Trace Technologies Flux Remover

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Trace Technologies Flux Remover
PRODUCT DESCRIPTION: Flux Remover
PRODUCT CODE: 2506/CAN/EUR-N

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 (U.S.): (800) 424-9300
CANUTEC: (613) 996-6666
Emergency Phone: 1-800-858-4043

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS#	EINECS#
2-Propanol	80 - 90	67-63-0	200-661-0
Hexane	10 - 20	110-54-3	203-777-6

EEC LABEL SYMBOL AND CLASSIFICATION

R11 - Highly flammable.

EEC Highly flammable - "F"

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

EEC Harmful - "Xn"

R52 - Harmful to aquatic organisms.

EEC Environment - "N"

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Transparent, colorless liquid.

IMMEDIATE CONCERNS: Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract. Causes skin irritation. Harmful if swallowed.

POTENTIAL HEALTH EFFECTS

EYES: Avoid contact with eyes; may cause redness, irritation and conjunctivitis.

SKIN: Prolonged or repeated skin contact may cause irritation.

INGESTION: Ingestion of large amounts may produce abdominal pain, nausea and vomiting. Swallowing small amounts is not likely to produce harmful effects.

INHALATION: Prolonged or excessive inhalation may cause respiratory tract irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Liquid splashed in the eye may cause redness, irritation and conjunctivitis.

SKIN: Prolonged or exposure may cause skin irritation.

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: Low hazard for usual industrial or commercial handling.

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

CANCER STATEMENT: NOT listed

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4. FIRST AID MEASURES

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

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

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. Call a physician immediately.

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

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5. FIRE FIGHTING MEASURES

FLAMMABLE LIMITS: 2.0 to 12.0

GENERAL HAZARD: Vapors can travel to a source of ignition and flash back.

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.

FIRE FIGHTING PROCEDURES: Evacuate area and fight fire from a safe distance.

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

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6. ACCIDENTAL RELEASE MEASURES

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

LARGE SPILL: Clean up spills immediately, observing precautions in Protective Equipment section.

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.

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7. HANDLING AND STORAGE

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

HANDLING: Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

STORAGE: Store away from heat.

STORAGE PRESSURE: Store at local atomspheric pressure.

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

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
		ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
2-Propanol	**TWA**	400	980	400	983	NL[1]	NL
	STEL	500	1225	500	1230	NL	NL
Hexane	**TWA**	50	180	50	176	NL	NL
	STEL	NL	NL	NL	NL	NL	NL

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: 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.

Butyl Rubber
Solvex

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.

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

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

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Alcohol odor
APPEARANCE: Clear, Colorless liquid
PERCENT VOLATILE: 100 at 20°C (68°F)
VAPOR DENSITY: 2.1 (Air=1)
BOILING POINT: to 80°C (176°F)
SOLUBILITY IN WATER: WT %
(VOC) NOTES: Not Established

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10. STABILITY AND REACTIVITY

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

STABILITY: Stable.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide and carbon Monoxide may form when heated to decomposition.

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

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11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD_{50}: Slight to very low toxicity.

ORAL LD_{50}: Practically non-toxic to animals. However, based on reports of human exposure to Methanol, a small amount (usually two or more ounces) can cause mental sluggishness, nausea and vomiting leading to severe illness, blindness or death if treatment is not received.

INHALATION LC_{50}: Slight to very low toxicity.

Fumes/liquid -- Irritant

EYE EFFECTS: Mixture is a moderate eye irritant.

SKIN EFFECTS: Based on human exposure reports, prolonged and repeated skin contact with Methanol has produced toxic effects including vision effects and death.

CARCINOGENICITY:

IARC: NOT listed

NTP: NOT listed

OSHA: NOT listed

MUTAGENICITY: Collective data indicate non-mutagenic.

REPRODUCTIVE EFFECTS: NOT listed

NEUROTOXICITY: Not Established

TERATOGENIC EFFECTS: Not Available

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.

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.

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

AIR (ICAO/IATA)
PROPER SHIPPING NAME: CONSUMER COMMODITY ID8000
PRIMARY HAZARD CLASS/DIVISION: 9
UN/NA NUMBER: ID8000
PACKING GROUP: N/A
IATA NOTE: Domestic shipments only. When shipping International contact TechSpray shipping department.

VESSEL (IMO/IMDG)
PROPER SHIPPING NAME: DANGEROUS GOODS IN LIMITED QUANTITIES OF CLASS 3 (HEXANE, 2-PROPANOL)
PRIMARY HAZARD CLASS/DIVISION: 3.2
UN/NA NUMBER: UN1992
PACKING GROUP: II
IMDG NOTE: Page 0147.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: IMMEDIATE / DELAYED

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

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

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are either listed or exempt from listing in the TSCA inventory.

RCRA STATUS: D001

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 (WORKER 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.

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

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION

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R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

EEC Harmful - "Xn"

R52 - Harmful to aquatic organisms.

EEC Environment - "N"

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

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16. OTHER INFORMATION

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

REVISION SUMMARY Revision #: 1

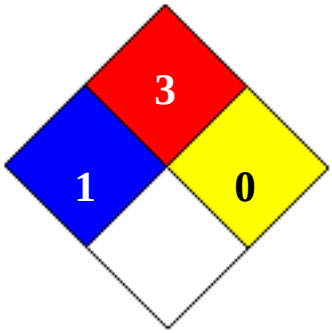
This MSDS replaces the January 17, 2003 MSDS. Any changes in information are as follows:
In Section 9
Specific Gravity (Unit)

In Section 15
EEC Risk Phrase Codes

HMIS RATING

HEALTH:	**1**
FLAMMABILITY:	**3**
PHYSICAL HAZARD:	**0**
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

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