MATERIAL SAFETY DATA SHEET

Date-Issued: 09/29/2004
MSDS Ref. No: 1621-10S
Date-Revised: 07/11/2005
Revision No: 2

New & Improved Ecoline Flux Remover

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: New & Improved Ecoline Flux Remover
PRODUCT DESCRIPTION: Flux Remover
PRODUCT CODE: 1621/EUR/CAN-10S

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	Wt.%	CAS#	EINECS#
2-Propanol	10 - 15	67-63-0	200-661-0
Ethanol	15 - 20	64-17-5	200-578-6
n-Propyl acetate	1 - 4	109-60-4	2036861
n-Heptane	60 - 80	142-82-5	
Methanol	2 - 4	67-56-1	200-659-6
Carbon dioxide	1 - 4	124-38-9	

EEC LABEL SYMBOL AND CLASSIFICATION

R11 - Highly flammable.

EEC Highly flammable - "F"

R20/22 - Harmful by inhalation and if swallowed.

EEC Harmful - "Xn"

R36/37/38 - Irritating to eyes, respiratory system and skin.

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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: This material may be harmful or fatal if swallowed.

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: Swallowing of this material may result in nausea, vomiting and weakness followed by central nervous system depression.

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.

REPRODUCTIVE TOXICITY

TERATOGENIC EFFECTS: Contains Methanol which has been established as a teratogen by inhalation. See Sec.11 for details.

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

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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

FLASHPOINT AND METHOD: (22°F)TAG CC

FLAMMABLE LIMITS: 1.1 (Heptane) to 6.7 (Heptane)

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: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

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 TEMPERATURE: Contents under pressure. Do not expose to heat or store above (120) F (49) C.

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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
n-Propyl acetate	**TWA**		200 ppm		200 ppm		
	STEL		250 ppm		250 ppm		
n-Heptane	**TWA**	400 ppm		400 ppm			
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. 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

ODOR: Characteristic odor.
APPEARANCE: Clear, Colorless liquid
pH: Not Applicable
PERCENT VOLATILE: 100 at 20°C (68°F)
VAPOR PRESSURE: 73.2 mmHg@20C (VOC Composite Vapor Pressure)
BOILING POINT: Not Determined
FREEZING POINT: Not Applicable
MELTING POINT: Not Applicable
EVAPORATION RATE: > 1 (TCE=1)
DENSITY: 0.713g/mL at 25°C
VISCOSITY: Not Applicable
MOLECULAR WEIGHT: 76.31
(VOC): 691.6 g/L (non-exempt VOC)

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10. STABILITY AND REACTIVITY

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

STABILITY: Stable.

POLYMERIZATION: Will not occur.

INCOMPATIBLE MATERIALS: Incompatible with alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

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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.

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.

TERATOGENIC EFFECTS: Information for Methanol: In an inhalation developmental toxicity study, rats were exposed 6hrs./day to 5000 - 20000 ppm vapors. A significant teratogenic response was seen at 20000 ppm. Fetotoxicity was noted at 10000 ppm, but not at 5000 ppm.

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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.

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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.

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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: AEROSOLS IN LIMITED QUANTITIES OF CLASS 2
PRIMARY HAZARD CLASS/DIVISION: 2.1

UN/NA NUMBER: 1950
PACKING GROUP: II
IMDG NOTE: Page 2102

EUROPEAN TRANSPORTATION:
ADR/RID HAZARD CLASSIFICATION: 2.1
ADR/RID ITEM NUMBER: UN1950

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15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: IMMEDIATE / DELAYED

FIRE: YES **PRESSURE GENERATING:** YES **ACUTE:** YES **CHRONIC:** YES

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

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

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: Methanol (#67-56-1)

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Methanol (#67-56-1)

CERCLA RQ: Methanol has an RQ of 5000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product is listed on 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.

CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: Methanol (CAS# 67-56-1)

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.

WHMIS CLASS: Class A, B5, D2B (Aerosol, Flammable Aerosol, Toxic Materials)

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

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION

R11 - Highly flammable.

EEC Highly flammable - "F"

R20/22 - Harmful by inhalation and if swallowed.

EEC Harmful - "Xn"

R36/37/38 - Irritating to eyes, respiratory system and skin.

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

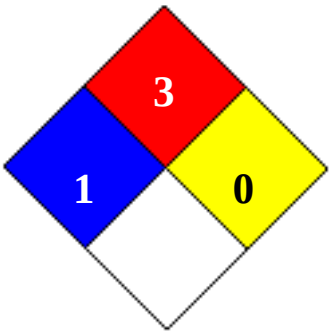
APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

REVISION SUMMARY Revision #: 2 This MSDS replaces the December 01, 2004 MSDS. Any changes in information are as follows: In Section 14 IMO Proper Shipping Name

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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