

MATERIAL SAFETY DATA SHEET

Finished Product

Date-Issued: 01/08/2003
MSDS Ref. No: 2104-12S
Date-Revised: 12/08/2004
Revision No: 5

Fine-L-Kote UR

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Fine-L-Kote UR
PRODUCT DESCRIPTION: Urethane Conformal Coating
PRODUCT CODE: 2104/CAN/EUR-12S

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

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>	<u>EINECS#</u>
n-Propyl acetate	20 - 30	109-60-4	2036861
Urethane prepolymer	15 - 30		
Xylenes (o-,m-,p- isomers)	20 - 24	1330-20-7	
ethylbenzene	5 - 8	100-41-4	202-849-4
Tetrahydrofuran	15 - 20	109-99-9	203-726-8
1,1,1,2-Tetrafluoroethane (HFC-134a)	25 - 40	811-97-2	223770

EEC LABEL SYMBOL AND CLASSIFICATION



R11 - Highly flammable.

EEC Highly flammable - "F"



R20/21 - Harmful by inhalation and in contact with skin.

EEC Harmful - "Xn"

R36 - Irritating to eyes.



R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EEC Environment - "N"

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Flammable liquid and vapor. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

POTENTIAL HEALTH EFFECTS

EYES: Severely irritating. If not removed promptly, will injure eye tissue, which may result in permanent damage.

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

SKIN ABSORPTION: Skin absorption can occur.

INGESTION: Single dose toxicity is low to moderate. If vomiting occurs, liquid can be aspirated into lungs, causing chemical pneumonia/systemic effects. Psychotropic, CNS, and gastrointestinal effects possible.

INHALATION: Prolonged or repeated inhalation may cause lung damage and/or central nervous system disturbances.

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: 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.

ROUTES OF ENTRY: Inhalation is major route of entry.

SENSITIZATION: Possible cardiac sensitization.

4. FIRST AID MEASURES

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

SKIN: Immediately flush with large amounts of water. Use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get prompt medical attention.

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: 27.2°C (81°F)TAG CC

FLAMMABLE LIMITS: LEL: 1.0% to UEL: 7.0%

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.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: 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 ignitable 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 and gravel, etc. as necessary and place in closed containers for disposal.

GENERAL PROCEDURES: Forms smooth, slippery surfaces on floors, posing an accident risk. Wear a self-contained breathing apparatus and appropriate personal protective equipment. (See Exposure Controls/Personal Protection Section). Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust.

7. HANDLING AND STORAGE

HANDLING: Empty containers will retain product residue and vapor and should be handled as if they were full.

STORAGE: Store in a cool place in original container and protect from sunlight.

STORAGE PRESSURE: Store at local atmospheric 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)

<u>Chemical Name</u>	<u>EXPOSURE LIMITS</u>					
	<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
n-Propyl acetate	TWA	200 ppm		200 ppm		
	STEL	250 ppm		250 ppm		
Urethane prepolymer						
Xylenes (o-,m-,p- isomers)	TWA	435 mg/m3		434 mg/m3		
	STEL	150 ppm		651 mg/m3		
Tetrahydrofuran	TWA	200 ppm ^[1]	250 mg/m3	200 ppm	590 mg/m3	NL mg/ m3
	STEL	590 ppm	735 mg/m3	250 ppm	737 mg/m3	NL mg/ m3
1,1,1,2-Tetrafluoroethane (HFC-134a)	TWA	NE		NE		1,000 ppm ^[2]

OSHA TABLE COMMENTS:

1. NL = Not Listed

2. * (AEL)=Acceptable Exposure Limit as established by the manufacture

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. Butyl Rubber Solvex

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 water-white viscous liquid with aromatic odor.

COLOR: Colorless

PERCENT VOLATILE: 60

VAPOR DENSITY: >1 (Air=1)

BOILING POINT: 149°C (300°F)

FREEZING POINT: Not Determined

SOLUBILITY IN WATER: Insoluble

EVAPORATION RATE: Not Established

DENSITY: 0.93

(VOC): 744 g/L (non-exempt VOC)

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

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

STABILITY: Stable.

POLYMERIZATION: Occurs with water.

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

INCOMPATIBLE MATERIALS: Metals. Acidic conditions. Oxidizing materials.

11. TOXICOLOGICAL INFORMATION

ACUTE

EYES: 20 mg

Moderately to severely irritating

DERMAL LD₅₀: >20 mg/kg (rabbit)

ORAL LD₅₀: 9370 mg/kg (rat)

INHALATION LC₅₀: 8000 ppm, 4-hour

EYE EFFECTS: High vapor concentrations may cause moderate to severe eye irritation.

SKIN EFFECTS: Causes irritation to skin.

CARCINOGENICITY:

IARC: NOT listed

NTP: NOT listed

OSHA: NOT listed

REPRODUCTIVE EFFECTS: Xylenes listed as a reproductive hazard.

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.

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

PRIMARY HAZARD CLASS/DIVISION: No classification

UN/NA NUMBER: NA

PACKING GROUP: NA

AIR (ICAO/IATA)

PROPER SHIPPING NAME: CONSUMER COMMODITY ID8000

PRIMARY HAZARD CLASS/DIVISION: 9

UN/NA NUMBER: ID8000

PACKING GROUP: II

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

UN/NA NUMBER: UN1950

PACKING GROUP: NA

IMDG NOTE: Page 2102

EUROPEAN TRANSPORTATION:

ADR/RID HAZARD CLASSIFICATION: 2.1

ADR/RID ITEM NUMBER: UN1950

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: Xylene Ethylbenzene

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Listed in table 302.4 of 40CFR Part 302 as a hazardous substance with a reportable quantity. Releases to air, land, or water which exceed the RQ must be reported to the national response center.

CERCLA RQ: 1000 Lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All chemicals in this product are listed in the TSCA inventory.

RCRA STATUS: U239 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 A, B5, D2B (Aerosol, Flammable Aerosol, Toxic Materials)

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION



R11 - Highly flammable.

EEC Highly flammable - "F"



R20/21 - Harmful by inhalation and in contact with skin.

EEC Harmful - "Xn"

R36 - Irritating to eyes.



R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EEC Environment - "N"

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

STATES WITH SPECIAL REQUIREMENTS

Tetrahydrofuran Pennsylvania: Massachusetts: New Jersey:

GENERAL COMMENTS: 1,1,1,2-tetrafluoroethane is subject to U.S. Environmental Agency Clean Air Act Regulations, (40CFR Part 82).

16. OTHER INFORMATION

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

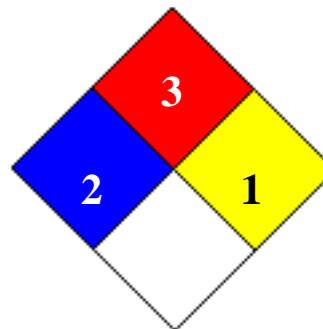
PREPARED BY: Steve Cook

REVISION SUMMARY Revision #: 5 This MSDS replaces the November 09, 2004 MSDS. Any changes in information are as follows: In Section 14 ADR/RID Hazard Class ADR/RID Item Number

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.