

MATERIAL SAFETY DATA SHEET

Finished Product

Date-Issued: 12/23/2002
MSDS Ref. No: 1640-B
Date-Revised: 12/23/2002
Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: General Purpose Cleaner/Degreaser
PRODUCT DESCRIPTION: Stabilized n-Propyl Bromide Azeotrope
PRODUCT CODE: 1640-Q, G, 5G, 54G

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

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>	<u>EINECS#</u>
n-Propyl Bromide	>98 - 100	106-94-5	
1,2-Epoxybutane	<1	106-88-7	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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: Causes eye irritation.

SKIN: Contact causes severe skin irritation and possible burns.

SKIN ABSORPTION: Skin absorption can occur.

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: 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).

CHRONIC: 2-butoxyethanol can be absorbed through the skin. Prolonged exposure by this route may have effects on the hematopoietic system, resulting in blood disorders.

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. 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: 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.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Not Flammable

FLAMMABLE LIMITS: 3.0 to 8.0

AUTOIGNITION TEMPERATURE: Not Established

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

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, Carbon dioxide, and hydrogen bromide.

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.

6. ACCIDENTAL RELEASE MEASURES

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.

7. HANDLING AND STORAGE

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

HANDLING: Avoid prolonged or repeated contact with skin.

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
n-Propyl Bromide	TWA	NE		NE ^[1]		25 ^[2]	
1,2-Epoxybutane	TWA		400				

OSHA TABLE COMMENTS:

- 1. NOT ESTABLISHED
- 2. Limit established by supplier

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.

- Buna
- Butyl
- Natural Latex
- Neoprene
- Solvex
- 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Characteristic odor.

APPEARANCE: Clear, Colorless liquid

PERCENT VOLATILE: 100 at 20°C (68°F)

VAPOR PRESSURE: 139 mmHg at 25°C (70°F)

BOILING POINT: to 71°C (160°F)

SOLUBILITY IN WATER: <1 at 25°C (70°F)

EVAPORATION RATE: >1 (H₂O=1)

SPECIFIC GRAVITY: 1.33 @ 20°C/20°C

(VOC): 1333 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: Carbon Dioxide and carbon Monoxide may form when heated to decomposition.

INCOMPATIBLE MATERIALS: Metals. Acidic conditions. Oxidizing materials.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Mixture is a moderate eye irritant.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data available. Contact Env. Dept.

CHEMICAL FATE INFORMATION: Not Established

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: Nonhazardous

UN/NA NUMBER: N/A

PACKING GROUP: N/A

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Nonhazardous

UN/NA NUMBER: M/A

PACKING GROUP: N/A

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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.

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.

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

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

16. OTHER INFORMATION

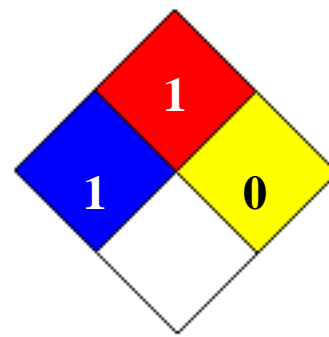
APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

PREPARED BY: Steve Cook

REVISION SUMMARY New MSDS

HMIS RATING

HEALTH:		1
FLAMMABILITY:		1
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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