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Section 1. CHEMICAL PRODUCT SECTION

Product Name: Concentrated Aqueous Defluxer

Product Number: 1635 BULK

General Use:

Product Description:

8008584043 A1

MANUFACTURER: Tech Spray, Inc.
P.O. Box 949
Amarillo, TX 79105-0949
PHONE: 806/372-8523
FAX: 806/372-8750

For Chemical Emergency, Spill, Leak, Fire Exposure, or Accident Call CHEMTREC DAY OR NIGHT 1-800-424-9300.

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Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL	C.A.S. Number	Weight %
Tetramethylammonium Hydroxide	75-59-2	< 7
Diethylene Glycol Monomethyl Ether	111-77-3	35-40
Lactam	872-50-4	5-10
Dipropylene Glycol Methyl Ether	34590-94-8	< 7
Nonionic Surfactants		< 10
Deionized Water		35-45

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

	Exposure Limits 8 Hours TWA (PPM)		
	OSHA PEL	ACGIH TLV	Supplier
Tetramethylammonium Hydroxide		NIF	
Diethylene Glycol Monomethyl Ether			
Lactam		100	
Dipropylene Glycol Methyl Ether	10	100	

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Section 3. HAZARD IDENTIFICATION

Emergency Overview:

Potential Health Effects:

INHALATION: Inhalation of mist can cause irritation and damage to the upper respiratory tract and lungs. Effects will vary, depending on the severity of the exposure, from mild irritation of nasal membrains to severe pneumonitis.

EYES: Contact with eyes rapidly causes burning. Damage to eye possible if material is not quickly removed.

SKIN: Severe irritant. Burning and redness caused by contact with liquid. Prolonged or repeated exposure can cause scar tissue to form. Small amounts of liquid on skin may not cause irritation for several minutes; however, the material is still causing damage to tissues which will be felt later. Keep skin clean from all contact and frequently wash hands.

INGESTION: Ingestion results in severe damage to mucous membranes and to underlying tisues with which contact is made. Perforation of these tissues may follow; severe and extensive scar formation may occure. Death may occure if material penetrates to vital areas.

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Section 4. FIRST AID MEASURES

Inhalation:

Move to fresh air in case of accidental inhalation of vapors. If victim has stopped breathing, give artificial respiration. Call for prompt medical attention.

Eye Contact:

Flush eyes with large amounts of water for 15 minutes or until irritation subsides. If irritation persist, get medical attention.

Remove Contaminated clothing (including shoes) and wash before reuse. Flush with large amounts of water. Use soap if available. If irritation persist, seek medical attention.

Ingestion:
Do not induce vomiting unless directed by a physician. If conscious and alert, give two glasses of water. Seek medical attention immediately.

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Section 5. FIRE FIGHTING MEASURES

Flash Point & Method: > 200 F COC Meth
Flammable Limits: LEL: NA UEL: NA
Autoignition Temperature:

GENERAL HAZARD:
None

FIRE FIGHTING INSTRUCTIONS:
Fire fighters should wear self contained, positive-pressure breathing apparatus and avoid skin contact.

FIRE FIGHTING EQUIPMENT:
Water, foam, dry chemical, carbon dioxide.

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

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Section 6. ACCIDENTAL RELEASE MEASURES

LAND SPILL:
Evacuate area. Personnal should weat full protective clothing including rubber boots and protective gloves. Dike up area and prevent runoff to sewer or surface waters. Pump or absorb liquid with suitable absorbent and place in sealed containers for disposal. Remove all possible sources of ignition from area.

WATER SPILL:

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Section 7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient
STORAGE PRESSURE: Atmospheric

GENERAL:
Keep container closed when not in use. Store in cool, well ventilated place out of direct sunlight and away from incompatible materials. (See STABILITY AND REACTIVITY Section 10.) Follow all MSD Sheet and Label warnings even after container is emptied.

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Section 8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls:
( ) Local Exhaust ventilation acceptable.
( ) Mechanical ventilation recommended.
( ) Use explosion-proof ventilation equipment.
(X) Do not use in confined spaces without mechanical ventilation equipment.
See section 2 for component exposure guidelines.

Personal Protection:
RESPIRATOR:
If concentrations are over the exposure limit and are known, air purifying respirator with Organic Vapor Cartridges may be acceptable. Refer to cartridges for acceptable levels. If concentrations are over exposure limit and are unknown, use a supplied air respirator.

HAND PROTECTION:
(X) Gloves recommended
(X) Solvex ( ) Neoprene
( ) Butyl ( ) Buna
( ) Natural Latex ( ) Cotton/Jersey

EYE PROTECTION:
(X) Safety Glasses ( ) Chemical Goggles ( ) Full Face Shield

OTHER RECOMMENDATIONS:

( ) Rubber Boots ( ) Splash-proof chemical resistant suit/apron

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Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Density.....	1.025	pH.....	14
Boiling Point.....	98 C / 208F	% Volatile.....	>90
Freezing Point.....	NIF	% Solids.....	<10
Vapor Density (Air=1):..	NE	Evaporation Rate (H2O=1)...	NIF
Solubility in Water.....	100	Viscosity.....	N/A
Molecular Weight.....	N/A	Physical State.....	LIQUID
Non-Exempt VOC (g/l)....	39	Odor.....	NIF

3.8% weight

Appearance: Transparent clear yellow liquid with ammonical odor.

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Section 10. STABILITY AND REACTIVITY

GENERAL:
STABLE

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:
Contact with open flame, heat.
Material will react with acids producing heat.

HAZARDOUS DECOMPOSITION:
Combustion yields carbon oxides.

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Section 11. TOXICOLOGICAL INFORMATION

RESULTS OF COMPONENT TOXICITY TEST PERFORMED:
Information not available.

HUMAN EXPERIENCE:
Information not available.

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Section 12. ECOLOGICAL INFORMATION

FURTHER INFORMATION:
Information not available.

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Section 13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification:

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

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Section 14. TRANSPORTATION INFORMATION

U.S. DOT Information
Proper Shipping Name: TETRAMETHYLAMMONIUM HYDROXIDE
Hazard Class: 8
Packaging Group: II
UN Number: UN1835
Limitations: 1635-P CAN SHIP AS CONSUMER COMMODITY ORM-D

IATA
Proper Shipping Name: TETRAMETHYLAMMONIUM HYDROXIDE
Hazard Class: 8
Packing Group: II
UN Number: UN1835
Limitations: CARGO AIRCRAFT ONLY. 1635-P can ship passanger aircraft in 4G box. For domestic shipments only.
When shipping International please contact Tech Spray shipping department.

IMO
Proper Shipping Name: TETRAMETHYLAMMONIUM HYDROXIDE
Class: 8
UN Number: UN1835
Packaging Group: II
EMS: 8-05
MFAG: 705
Marine Pollutant: N/A
Canadian TDG: N/A
IMDG Page: 8225

Limited Quantities of Class 8 (TETRAMETHYLAMMONIUM HYDROXIDE)
(1635-P)

Section 15. REGULATORY INFORMATION

UNITED STATES FEDERAL REGULATIONS:

MSDS complies with OSHAs Hazard Communication Rule, 29 CFR 1910.1200.

CERCLA/SUPERFUND, 40 CFR 117, 302:
--- None of the chemicals are Superfund hazards ---

SARA SUPERFUND AND REAUTHORIZATION ACT OF 1986
TITLE III Sections 302, 311, 312 and 313:

Section 302 - Extremely hazardous substances (40 CFR 355):
--- None of the chemicals are Section 302 hazards ---

Section 311/312 - Material Safety Data Sheet Requirements (40 CFR 370)
( ) By our hazard evaluation, this product is non-hazardous.
(X) By our hazard evaluation, this product is hazardous. It should be reported under the following EPA hazard.
(X) Immediate (acute) health hazard
( ) Delayed (chronic) chronic health hazard
( ) Sudden release of pressure hazard
( ) Reactive hazard

Section 313 - List of Toxic Chemicals (40 CFC 372)
This product contains the following chemicals (at levels of 1% or greater) which are found on the 313 list of Toxic Chemicals.

CHEMICAL	C.A.S. NUMBER	WEIGHT %
Glycol Ethers		39

TOXIC SUBSTANCE CONTROL ACT (TSCA): All substances are TSCA Listed.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA 40 CFR 261) Subpart C & D:
Refer to Section 11. for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (FORMERLY SECTION 307), 40 CFR 116 (FORMERLY SECTION 311)
This product contains the following chemicals which are listed:

CHEMICAL	C.A.S. NUMBER	WEIGHT %

CLEAN AIR ACT: --- No Information ---

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:
This product contains the following ingredients which appear on the California proposition 65 list:

CHEMICAL	C.A.S. NUMBER	WEIGHT %
--- None of the chemicals are on the Proposition 65 list ---		

INTERNATIONAL REGULATIONS:

CANADA WHIMS: NIF
EUROPE EINECS NUMBERS: Tetramethylammonium Hydroxide; 200-882-9

Section 16. OTHER INFORMATION

LABEL INFORMATION:

European risk and Safety Phrases: S2, S16, S26, S27, S36/37/39, R10, R34
European Symbols Needed: CORROSIVE
Canadian WHIMS Symbols: NIF

NFPA HAZARD RATING:

(0) Fire (2) Health (1) Reactivity

REVISION DATES, SECTIONS, REVISED BY:
27-JLY-94, CONVERTED TO ANSI STANDARD, B. RIFFEL

ABBREVIATIONS USED IN THIS DOCUMENT:
NE - Not Established, NA - Not Applicable, NIF - No Information Found

Code of Federal Regulations (CFR)
The Sigma-Aldrich Library of Regulatory and Safety Data
Chemical Guide and OSHA Hazard Communication Standard
Various Federal, State & Local Regulations

To the best of our knowledge, the information contained herein is accurate. However, neither Tech Spray, Inc. 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 desoribed herein, we cannot guarantee that these are the only hazards which exist.