



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Uniplex 84

Synonyms: Acetyl tributylcitrate, ATBC; 1,2,3-Propanetricarboxylic acid, 2-(Acetyloxy)-,tributyl ester

MANUFACTURER:

Unitex Chemical Corporation
520 Broome Road
P.O. Box 16344
Greensboro, NC 27406

EMERGENCY TELEPHONE NUMBERS:

Emergency Telephone Number: CHEMTREC 1 (800) 424-9300
International 1 (703) 527-3887
Telephone Number for Information:
(336) 378-0965 (Monday - Friday 8:00 a.m. - 5:00 p.m.)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>% (optional)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CAS NO.</u>
Acetyl Tributyl Citrate	> 99%	Not Established		77-90-7

3. HAZARDS IDENTIFICATION

Emergency Overview: Do not breathe vapors; do not ingest; avoid contact with skin, eyes, or clothing. Wash thoroughly after handling; do not eat, drink, or smoke in work areas.

Potential Health Effects: May cause skin irritation. Inhalation of mist may cause irritation to the respiratory tract.

Eye Contact: May cause burning sensation, irritation accompanied with pain and corneal or conjunctival ulceration in severe cases.

Skin Contact: May cause irritation, stinging, redness, and some swelling.

Ingestion: May cause severe burning in the mouth and digestive tract.

Chronic: None known.

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4. FIRST AID MEASURES

Inhalation: Remove to fresh air if coughing, soreness in respiratory tract, chest tightness, or difficulty in breathing occurs.

Eye Contact: Immediately flush with large quantities of water for at least 15 minutes, while holding the eyelids open. Do not attempt to neutralize with chemical agents. Contact a physician if irritation persists.

Skin Contact: Immediately remove contaminated clothing and flush area with large quantities of water for at least 15 minutes. Contact a physician if irritation persists.

Ingestion: If patient is conscious, give several glasses of water for dilution effect and contact a physician. Do not induce vomiting. Do not give an unconscious person anything by mouth.

5. FIRE FIGHTING MEASURES

Flash Point: 399° F (204°C) Cleveland open cup.

Flammability Class (OSHA): IIIB

General Hazard: Handle as burning oil.

Fire Fighting Instructions: Extinguishing media--water fog or spray; carbon dioxide; foam; or earth and mud.

Hazardous Combustion Products: Oxides of Carbon.

6. ACCIDENTAL RELEASE MEASURES

Land Spill: Evacuate area of nonessential personnel. Ventilate area as required. Prevent spill from entering drinking water supplies or streams.

Water Spill: Remove product layered on water by mechanical means. Place spill in appropriate container for disposal in approved facilities.

7. HANDLING AND STORAGE

Storage Temperature: Ambient Storage Pressure: Pressureless

General: Store in cool, dry, and well-ventilated area. Keep containers closed.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Based on available information, additional ventilation is not required. Ensure compliance with applicable exposure limits.

Personal Protection: Non required, but splash-proof goggles with rubber, PVC, or impervious chemical gloves suggested.

Respirator: None required. Use NIOSH organic vapor cartridge respirator for remediation of large spills.

Protective Clothing: Impervious chemical clothing for remediation of large spills.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure	: <u>0.8 mmHg @ 170° C</u>	Vapor Density (Air = 1)	: <u>14.1</u>
Specific Gravity	: <u>1.050</u>	Evaporation Rate	: <u>< 1 (Butyl Acetate</u>
Solubility in Water	: <u>Insoluble</u>	Freezing Point	: <u>- 112° F (- 80° C)</u>
pH	: <u>NA</u>	Odor	: <u>Mild</u>
Boiling Point	: <u>173°C at 1 mm/Hg</u>	Appearance	: <u>Clear, colorless liquid</u>
Viscosity	: <u>30 cps @ 25°C</u>	Physical State	: <u>Liquid</u>

10. STABILITY AND REACTIVITY

General: Stable

Incompatible Materials and Conditions to Avoid: Oxidizing materials.

Hazardous Decomposition: None known

11. TOXICOLOGICAL INFORMATION

Acetyl Tributyl Citrate:

TOXICITY DATA:

> 30 ml/kg oral - rat LD50; > 50 ml/kg oral - cat LD50; > 4 gm/kg interperitoneal - mouse LD50; 12600 mg/kg/14 day(s) intermittent intraperitoneal - mouse TDLo

ACUTE TOXICITY LEVEL: Insufficient Data.

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HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

ACETYL TRIBUTYL CITRATE: No data available.

CHRONIC EXPOSURE:

ACETYL TRIBUTYL CITRATE: No data available.

SKIN CONTACT:

ACUTE EXPOSURE:

ACETYL TRIBUTYL CITRATE: No data available.

CHRONIC EXPOSURE:

ACETYL TRIBUTYL CITRATE: It is reported to be non-irritating and non-sensitizing in human skin sensitization tests and completely non-irritating to intact and abraded rabbit skin after 18 applications.

EYE CONTACT:

ACUTE EXPOSURE:

ACETYL TRIBUTYL CITRATE: Slight but transient erythema was reported in rabbits after a single application.

CHRONIC EXPOSURE:

ACETYL TRIBUTYL CITRATE: No data available.

INGESTION:

ACUTE EXPOSURE:

ACETYL TRIBUTYL CITRATE: Acetyl tributyl citrate is practically nontoxic. In animals given doses ranging from 10 - 50 ml/kg the only symptoms were sluggishness, signs of slight nausea, and diarrhea. There was no signs of systemic toxicity.

CHRONIC EXPOSURE:

ACETYL TRIBUTYL CITRATE: No adverse effects were reported in rats or dogs fed 1000 mg/kg/day and 140 mg/kg/day respectively for 2 years. Acetyl tributyl citrate when fed to rats for 6 weeks showed no effects at the 5% level but growth depression at the 10% level possibly due to frequent diarrhea. No adverse effects were detected on blood count or gross and histological examination of the thoracic or abdominal organs. Cats treated with 5 ml/kg for 8 weeks showed a decline of approximately 30% body weight with no effects observed on appearance, behavior, urine, blood chemistry or blood count.

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12. ECOLOGICAL INFORMATION

None known.

13. DISPOSAL CONSIDERATIONS

This product is registered by TSCA. The product should be incinerated, according to state Federal regulations.

14. TRANSPORT INFORMATION

No classification assigned.

LAND TRANSPORT ADR/RID: No classification assigned.

AIR TRANSPORT IATA/ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

15. REGULATORY INFORMATION

This product is registered by TSCA. Uniplex 84 is not a hazardous substance as defined by OSHA (29 CFR 1910.1200). The EINECS Number is 201-067-0.

U.S. REGULATIONS:

TSCA INVENTORY STATUS: Y

TSCA 12 (b) EXPORT NOTIFICATION: Not listed.

CERCLA SECTION 103 (40CFR302.4): N

SARA SECTION 302 (40CFR355.30) : N

SARA SECTION 304 (40CFR355.40) : N

SARA SECTION 313 (40CFR372.65): N

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: Y

CHRONIC: N

FIRE: N

REACTIVE: N

SUDDEN RELEASE: N

OSHA PROCESS SAFETY (29CFR1910.119): N

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STATE REGULATIONS:

California Proposition 65: N

EUROPEAN REGULATIONS:

EC NUMBER (EINECS): 201-067-0

GERMAN REGULATIONS:

WATER HAZARD CLASS (WGK): 1 (Provisionally Accepted Self Classification)

WATER HAZARD CLASS (WGK): 1 (Self Classification by manufacturers and Distributors)

16. OTHER INFORMATION

No specific notes.

MSDS Status: Update to ANS1 Z 400.1-1993 Format.

	HAZARD RATINGS	
	NFPA	HMIS
Health	1	1
Flammability	1	1
Reactivity	0	0

Revision Summary:

2/5/96 - J. Day

1/26/98 - J. Day

8/3/98 - J. Day (Area Code Chg.)

12/7/98 - J. Day

5/11/04 - J. Day