



**OTHER EFFECTS:** Repeated or prolonged exposure to vapors may cause central nervous system depression, and decreased male fertility. Repeated or prolonged dermal contact may cause decreased male fertility. Ingestion may cause developmental effects.

**CARCINOGENICITY:** Not listed as carcinogen by NTP or IARC, not regulated by OSHA.

---

#### SECTION 4 FIRST AID MEASURES

---

**EYE CONTACT:** Flush with large volumes of water for at least 15 minutes. Get medical attention.

**SKIN CONTACT:** Wash with large volumes of soap and water. If irritation occurs, get medical attention.

**INHALATION:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing difficult give oxygen. Get medical attention.

**INGESTION:** If conscious, give person 1 to 2 glasses of water. Get medical attention immediately.

---

#### SECTION 5 FIRE-FIGHTING MEASURES

---

**FLASHPOINT:** 165°F (74°C) TCC method

**FLAMMABLE LIMITS (%Volume):** UEL=9.7 LEL= 1.5

**AUTOIGNITION TEMPERATURE:** 540°F (282°C)

---

**GENERAL HAZARD:** Combustible liquid.

**FIRE FIGHTING:** Firefighters should have eye protection and wear self-contained breathing apparatus. Use water spray to cool containers exposed to fire.

**EXTINGUISHING MEDIA:** Alcohol foam, carbon dioxide, dry chemical, water spray for dilution to non-flammable mixture.

**DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:** Combustion produces carbon dioxide and carbon monoxide.

---

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

---

**LAND SPILL :** Pick up spill on sand, earth or other non-combustible, absorbent material. Flush area with water to remove last traces. Collect wash water/material for disposal. Wear all appropriate personal protective equipment.

---

#### SECTION 7 STORAGE AND HANDLING

---

**STORAGE AND HANDLING:** Store in cool, dry, well ventilated location. Outside or detached storage is preferred. Separate from oxidizers. Keep containers tightly closed. No smoking or eating in handling area. Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not wear contact lenses when working with this material.

May 2, 2008

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

**WORKPLACE EXPOSURE GUIDELINES:** Avoid direct contact with tetrahydrofurfuryl alcohol. General ventilation and local exhaust required to minimize exposure to mists and vapors.

**OSHA PEL** - Not Established.      **ACGIH TLV** - Not Established.      **AIHA WEEL GUIDE:** 2ppm (8hr TWA).

**PERSONAL PROTECTION:** If misting or vapors occur use NIOSH approved organic vapor air purifying respirator. Use chemical safety goggles for eye protection. Use impervious chemical gloves (North Safety Products, Silver Shield). Have eye wash and safety shower available.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**SPECIFIC GRAVITY:** 1.05

**VAPOR PRESSURE:** mmHg: 0.2 at 68 °F (20°C)

**SOLUBILITY IN WATER:** Complete.

**APPEARANCE:** Clear, water white to pale yellow, mobile liquid.

**VAPOR DENSITY at 1 atm (Air=1):** 3.5

**FREEZING/MELTING POINT:** -112°F ( -80° C)

**BOILING POINT:** 352°F ( 178°C)

**pH:** not available      **ODOR:** Mild characteristic odor.

**SECTION 10 STABILITY AND REACTIVITY**

**STABILITY:** Stable.

**HAZARDOUS POLYMERIZATION:** None.

**INCOMPATIBLE MATERIALS:** oxidizers, strong acids, strong bases.

**CONDITIONS TO AVOID:** heat, sparks, flame or other sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Combustion produces carbon dioxide and carbon monoxide.

**SECTION 11 TOXICOLOGICAL INFORMATION**

<u>COMPONENT</u>	<u>ACUTE TEST</u>	<u>VALUE</u>	<u>SPECIES</u>
THFA <sup>®</sup>	Oral LD50	1600 mg/Kg*	Rat
	Intraperitoneal LD50	400 mg/Kg*	Rat
	Oral LD50	2300 mg/Kg*	Mouse
	Intravenous LD50	725 mg/Kg*	Rabbit
	Oral LD50	800 mg/Kg*	Guinea pig
	Dermal LD50	5 g/Kg*	Guinea pig
	Intraperitoneal LD50	400 mg/Kg*	Guinea pig

\*RTECS Reference

**ACUTE EFFECTS:** Moderately irritating to eyes, skin and mucous membranes. Moderately toxic by ingestion.

**SUBCHRONIC EFFECTS:** Subchronic exposures (oral, dermal and inhalation) at relatively high levels, have demonstrated systemic toxicity, reproductive toxicity, and central nervous system depression in either rats, rabbits or dogs. An oral developmental screening study in rats expressed a lower mean fetal body weight at 100 mg/kg/day.

May 2, 2008

**CHRONIC EFFECTS:** Not available  
**MUTAGENICITY:** Not mutagenic by the Ames test.

---

## SECTION 12 ECOLOGICAL INFORMATION

---

Tetrahydrofurfuryl alcohol readily biodegrades in soil, sludge and water. The atmospheric half-life is 13 hours. (Reference: HSDB of the National Library of Medicine)

---

## SECTION 13 DISPOSAL CONSIDERATIONS

---

Tetrahydrofurfuryl alcohol is not an EPA hazardous waste. Dispose of in accord with regulations.

---

## SECTION 14 TRANSPORT INFORMATION

---

**DEPARTMENT OF TRANSPORTATION (DOT):** Combustible liquid, N.O.S. (Tetrahydrofurfuryl alcohol), NA 1993, Packing Group III. Label: None.  
49CFR173.150: Combustible liquids in non-bulk packaging are not regulated by DOT.

---

## SECTION 15 REGULATORY INFORMATION

---

**INVENTORY LISTINGS:** Tetrahydrofurfuryl alcohol is listed on the TSCA, DSL, and EINECS inventories.

---

## SECTION 16 OTHER INFORMATION

---

**HAZARD RATING SYSTEMS:** NFPA Hazard Identification: HEALTH **2**, FLAMMABILITY **2**, REACTIVITY **0**.

---

**REVISION:** 5/08 Update product names

---

**SUPERSEDES ISSUE DATE:** 7/03

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPILED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE. WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION NOR DO WE OFFER WARRANTY AGAINST PATENT INFRINGEMENT.

---