



# MATERIAL SAFETY DATA SHEET

**MSDS IDENTIFICATION NAME:** Tyfo<sup>®</sup> CIS, Layer 1  
**MSDS NUMBER:** TYFO-CIS-Layer1-001

**DATE:** December 3, 2010 **PAGE:** 1 OF 3  
**SUPERSEDES:** May 2008

## SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

**MANUFACTURER:**  
FYFE CO. LLC  
8380 Miralani Drive  
San Diego, CA 92126

**EMERGENCY TELEPHONE NUMBER:**  
CHEMTEL 800 255 3924 (24 Hours)  
**INFORMATION TELEPHONE NUMBER:**  
858-642-0694

**PRODUCT IDENTIFICATION NUMBER:** Tyfo<sup>®</sup> CIS Layer 1  
**CHEMICAL FAMILY:** Organic Amine Salt

## SECTION II: COMPOSITION / INFORMATION ON INGREDIENTS

This document is prepared to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

MATERIAL OR COMPONENT	CAS NUMBER	OSHA(PEL)	OSHA(TWA)	ACGIH(TLV)
Ethylene Glycol N-Butyl Ether	111-76-2	120 ppm	121 mg/m <sup>3</sup>	121 ppm

## SECTION III: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

### APPEARANCE AND ODOR:

Amber Liquid with chemical odor.

### STATEMENTS OF HAZARD:

Caution, may cause skin and eye irritation.

### PRIMARY ROUTES OF EXPOSURE:

EYES—YES      SKIN CONTACT—YES      INHALATION—YES      INGESTION--NO

### POTENTIAL HEALTH EFFECTS:

EYES: Contact may cause irritation and stinging.

SKIN: Prolonged exposure may irritate the skin.

INHALATION: Causes irritation to the respiratory tract.

INGESTION: May cause irritation to the esophagus and stomach.

Medical conditions aggravated by exposure: Asthma and lung diseases, skin diseases.

Chemical Listed as Carcinogen or Potential Carcinogen: NO

National Toxicology Program: NO      I.A.R.C. Monographs: NO      OSHA: NO

## SECTION IV: FIRST AID MEASURES

**EYES:** Rinse eyes with cool water for 15 minutes. Get medical attention.

**SKIN CONTACT:** Wash off with soap and water. If irritation occurs, get medical attention. Dries to form a glossy film which can easily cut skin.

**INHALATION:** Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

**INGESTION:** Drink two glasses of water and induce vomiting. Never give anything to an unconscious person. Get medical attention.

### SECTION V: FIRE FIGHTING MEASURES

**FLASH POINT/METHOD OF DETERMINATION:** Not Available

**MEANS OF EXTINCTION:** Use water fog, foam, dry chemical or CO<sub>2</sub> to extinguish fires.

**AUTO-IGNITION TEMP.:** Not Available      **LIMITS OF FLAMMABILITY: LEL:** Not Available **UEL:** Not Available

**SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:** Avoid breathing vapors.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known.

### SECTION VI: ACCIDENTAL RELEASE MEASURES

**PROCEDURES IN CASE OF ACCIDENTAL RELEASE OF LEAKAGE:** Large spills – Dike and contain for intended use. Small spills – Eliminate all sources of ignition such as fires, flames (including pilot lights) and electrical sparks. Absorb liquid on vermiculite, floor absorbent material and transfer to hood.

### SECTION VII: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Keep product from freezing. If frozen, thaw and agitate before use.

### SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EYE/FACE PROTECTION:** Wear chemical resistant goggles to prevent contact with eyes.

**SKIN PROTECTION:** Wear chemical resistant protective clothing, gloves, and boots depending on the operation. Thoroughly clean contaminated clothing.

**RESPIRATORY PROTECTION:** U.S Bureau of Mines Respirator; self-contained breathing device, airline or NIOSH approved respirator. The specific respirator selected must be based on contamination levels in the work place, must be based on the specific operation, must not exceed the working limits of the respirator, and must be jointly approved by the National Institute of Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA). Recommend wearing respirator when applying by spray.

**VENTILATION:** Local Exhaust.

**GENERAL HYGIENE RECOMMENDATIONS:** Remove any contaminated clothing and launder before reuse. Properly dispose of shoes and clothing that are extremely contaminated.

### SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE AND ODOR</b>	Amber liquid with chemical odor
<b>BOILING POINT (°F/°C)</b>	212°F
<b>MELTING POINT (°F/°C)</b>	Not Available
<b>SPECIFIC GRAVITY ( WATER = 1)</b>	0.968
<b>pH</b>	7.5
<b>VAPOR PRESSURE @ 20°C (mm Hg.)</b>	Not Available
<b>VAPOR DENSITY (AIR-1)</b>	Not Available
<b>ODOR THRESHOLD</b>	Not Available
<b>SOLUBILITY IN WATER</b>	100%
<b>EVAPORATION RATE</b>	Not Available

### SECTION X: STABILITY AND REACTIVITY

**STABILITY:** Stable      **HAZARDOUS POLYMERIZATION:** Will not occur under normal conditions of use.

**INCOMPATIBLE MATERIALS:** Contact with acids or bases.

**CONDITIONS TO AVOID:** None known.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** None.

**SECTION XI: TOXICOLOGICAL INFORMATION**

Not Available.

**SECTION XII: ECOLOGICAL INFORMATION**

Not Available.

**SECTION XIII: DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHODS:** Material for disposal should be placed in appropriate sealed containers to avoid potential human and environmental exposure. Dispose of in a manner that complies with all local, state and Federal regulations.

**SECTION XIV: TRANSPORTATION INFORMATION**

**DOT AND IATA:**

DOT SHIPPING NAME	Compounds, cleaning liquid
Label Required	None

**SECTION XV: REGULATORY INFORMATION**

SECTION 313 (With Chemicals Listed): This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372:

Ingredient	CAS Number	Weight Percent
None	NA	NA

**SECTION XVI: OTHER INFORMATION**

**SPECIAL PRECAUTIONS:** Empty containers will retain some of the product residue. When handling or disposing of them, follow all label warnings, other instructions and waste disposal procedures.

**EXPLANATION AND DISCLAIMER:** Wherever such words or phrases as "hazardous," "toxic," "carcinogen," appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful. ANY EXPOSURE CAN ONLY BE UNDERSTOOD WITHIN THE ENTIRE CONTEXT OF ITS OCCURRENCE, WHICH INCLUDES SUCH FACTORS AS THE SUBSTANCE'S CHARACTERISTICS AS DEFINED IN THE MSDS, AMOUNT AND DURATION OF EXPOSURE, OTHER CHEMICALS PRESENT AND PREEXISTING INDIVIDUAL DIFFERENCES IN RESPONSE TO THE EXPOSURE.

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**APPROVED AND AUTHORIZED BY:** *Edward R. Fyfe*