

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS IDENTIFICATION NAME: TYFO® U Coat, PART B
MSDS NUMBER: TYFO-U-B-001

DATE: March 28, 2011 **PAGE:** 1 OF 6
SUPERSEDES MSDS: 09/09/2010

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

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

EMERGENCY TELEPHONE NUMBER:
800-424-9300 or 703-527-3887
INFORMATION TELEPHONE NUMBER:
858-642-0694

PRODUCTION IDENTIFICATION NUMBER: TYFO® U Coat, PART B
CHEMICAL FAMILY:

SECTION II: COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL COMPONENT	OR	CAS NUMBER	% BY WEIGHT	ACGIH-TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA-CEIL
Homopolymer of HDI		28182-81-2	75.0	N/E	N/E	N/E	N/E
N-Butyl Acetate		123-86-4	15.0	150 PPM	200 PPM	710 Mg/M3	N/E
Meta-Xylene		108-38-3	10.0	434 Mg/M3	651 Mg/M3	434 Mg/M3	N/E
Para-Xylene		106-42-3	5.0	100 PPM	150 PPM	435 Mg/M3	N/E
Ethyl Benzene		100-41-4	5.0	100 PPM	125 PPM	435 Mg/M3	N/E
Ortho-Xylene		95-47-6	5.0	434 Mg/M3	651 Mg/M3	434 Mg/M3	N/E
Hexamethylene Diisocyanate		822-06-0	0.6	0.005 PPM	N/E	N/E	N/E

SECTION III: HAZARDS IDENTIFICATION

Emergency Overview: Reacts violently with common materials including water, alcohols, bases and amines. Harmful if inhaled. Eye, skin and respiratory tract irritant. Possible sensitizer.

Effects Of Overexposure - Eye Contact: May cause eye irritation.

Effects Of Overexposure - Skin Contact: Irritant. May produce symptoms similar to those from inhalation. Can cause dryness, loss of natural oils, allergic reaction.

Effects Of Overexposure - Inhalation: Harmful if inhaled. May cause hoarseness, upper respiratory tract irritation, intoxication, headache, confusion, coma, liver damage, kidney damage.

Effects Of Overexposure - Ingestion: Harmful if ingested. May produce symptoms similar to those from Inhalation. Can cause nausea, abdominal cramps.

Effects Of Overexposure - Chronic Hazards: Prolonged contact may cause liver damage, kidney damage, chronic damage to intestines, central nervous system damage, dizziness, weakness, headache, nausea. Repeated, prolonged contact may cause intestinal disturbances. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Ingestion, Eye Contact

Medical Conditions Prone to Aggravation by Exposure: If sensitized to isocyanates or other chemicals, do not use. See a physician if a medical condition exists.

SECTION IV: FIRST AID MEASURES

FIRST AID MEASURES:

Eye Contact: If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

Skin Contact: In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Launder clothing before reuse. If rash or irritation develops, consult a physician.

Inhalation: If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

Ingestion: If swallowed do not induce vomiting. Seek immediate medical attention.

SECTION V: FIRE FIGHTING MEASURES

FIGHTING MEASURES:

Flash Point, F: 91F (35C)
(Seta flash)

Lower Explosive Limit, %: 1.0
Upper Explosive Limit, %: 10.4

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire and Explosion Hazards: No Information

Special Firefighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apperatus and full protective clothing. Cool tightly closed containers exposed to fire with water.

SECTION VI: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Steps to Be Taken If Material Is Released Or Spilled: No Information

SECTION VII: HANDLING AND STORAGE

HANDLING AND STORAGE:

Handling: Do not get in eyes, on skin, or on clothing. Keep container tightly closed when not in use. Wear personal protection equipment. Do not breathe vapors. Wash thoroughly after handling. If pouring or transferring materials, ground all containers and tools. Do not weld, heat, cut or drill on full or empty containers. Use only in accordance with Carboline application instructions, container label and Product Data Sheet.

Storage: No information

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE CONTROLS/PERSONAL PROTECTION:**

Engineering Controls: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

Respiratory Protection: Use only with ventilation to keep levels below exposure guidelines listed in Section 2. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not in a confined space, and not able to monitor, use MSHA/NIOSH approved organic vapor respirator. Follow all current OSHA requirements for respirator use.

Skin Protection: Recommend impervious gloves and clothing to avoid skin contact. If material penetrates to skin, change gloves and clothing. The use of protective creams may be beneficial to certain individuals. Protective creams should be applied before exposure.

Eye Protection: Recommend safety glasses with side shields or chemical goggles to avoid eye contact.

Other protective equipment: Eye wash and safety showers should be readily available.

Hygienic Practices: Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and allow hazardous materials to pass through. Check shoes carefully after soaking before reuse.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL AND CHEMICAL PROPERTIES:**

Boiling Range: 262 F (128 C) - 262 F (128 C)

Odor: Solvent

Appearance: Pale Yellow Viscous Liquid

Solubility in H₂O: N/D

Freeze Point: N/D

Vapor Pressure: 4.9 mmHg at 68F (20C)

Physical State: Liquid

Vapor Density: Heavier than Air

Odor Threshold: N/D

Evaporation Rate: Slower Than Ether

Specific Gravity: app. 1.05

PH: N/D

(see Section 16 for abbreviation legend)

SECTION X: STABILITY AND REACTIVITY**STABILITY AND REACTIVITY:**

Conditions To Avoid: No Information.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

SECTION XI: TOXICOLOGICAL INFORMATION

PRODUCT LD50: N/D

CHEMICAL NAME	CAS NUMBER	LD50	LC50
Homopolymer of HDI	28182-81-2	>5000 Mg/KG, ORAL, RAT	3124 Mg/KG
N-Butyl Acetate	123-86-4	7.4 G/KG RABBIT, ORAL	>1800 PPM/6H INHALATION
Meta-Xylene	108-38-3	NOT AVAILABLE	NOT AVAILABLE
Para-Xylene	106-42-3	NOT AVAILABLE	NOT AVAILABLE
Ethyl Benzene	100-41-4	3500 Mg/KG RAT, ORAL	NOT AVAILABLE
Ortho-Xylene	95-47-6	NOT AVAILABLE	NOT AVAILABLE
Hexamethylene Diisocyanate	822-06-0	710 Mg/KG, ORAL, RATE	23 PPM/4 HOURS

SECTION XII: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Data

SECTION XIII: DISPOSAL CONSIDERATIONS

DISPOSAL INFORMATION: Dispose of in accordance with State, Local, and Federal Environmental regulations. Responsibility for proper waste disposal is with the owner of the waste.

SECTION XIV: TRANSPORTATION INFORMATION

TRANSPORTATION INFORMATION:

DOT Proper Shipping Name:	Paint
Packing Group:	III
DOT Technical Name:	N/A
Hazard Subclass:	N/A
DOT Hazard Class:	3
Resp. Guide Page:	128
DOT UN/NA Number:	UN 1263

SECTION XV: REGULATORY INFORMATION

REGULATORY INFORMATION:

CERCLA – SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

SECTION XV: REGULATORY INFORMATION (Continued)

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

SARA SECTION 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER
Meta-Xylene	108-38-3
Para-Xylene	106-42-3
Ethyl Benzene	100-41-4
Ortho-Xylene	95-47-6
Hexamethylene Diisocyanate	822-06-0

TOXIC SUBSTANCES CONTROL ACT:

All components of this product are listed on the TSCA inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(B) Substances exist in this product.

U.S. STATE REGULATIONS AS FOLLOWS:

CALIFORNIA PROPOSITION 65:

WARNING: The following ingredients present in the product are known to the State of California to cause Cancer:

CHEMICAL NAME	CAS NUMBER
Ethyl Benzene	100-41-4

WARNING: The following ingredients present in the product are known to the State of California to cause birth defects, or other reproductive hazards:

CHEMICAL NAME	CAS NUMBER
Toluene	108-88-3

SECTION XV: REGULATORY INFORMATION (Continued)**INTERNATIONAL REGULATIONS AS FOLLOWS:****CANADIAN WHMIS**

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: B2 D2A D2B

SECTION XVI: OTHER INFORMATION

HMIS Ratings: Health: 3 Flammability: 3 Reactivity: 1 Personal Protection: X

VOLATILE ORGANIC COMPOUNDS, GR/LTR MIXED (UNTHINNED): See Part A MSDS

REASON FOR REVISION: Changes made in Section(s): 8 and 15

Legend: N.A. – Not Applicable, N.E. – Not Established, N.D. – Not Determined

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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*