

MATERIAL SAFETY DATA SHEET

MSDS IDENTIFICATION NAME: TYFO® VG Primer
MSDS NUMBER: TYFO-VGPRIMER-001

DATE: 06/17/10 **PAGE:** 1 OF 4
SUPERSEDES: 01/15/01

SECTION I: MATERIAL AND MANUFACTURER IDENTIFICATION

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

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

PRODUCT IDENTIFICATION NUMBER: TYFO® VG Primer
CHEMICAL FAMILY: Chemical Primer

SECTION II: COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS NUMBER	% BY WEIGHT	OSHA(PEL)	ACGIH(TLV)
Acrylic Polymer	Not Hazardous	46-48	Not Established	Not Established
Residual Monomers	Not Required	<0.05	Not Established	Not Established
Aqua Ammonia	1336-21-6	0.2 MAX	35 PPM	35 PPM
Water	7732-18-5	52-54	None	None

SECTION III: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR: White Milky liquid

PRIMARY ROUTE OF EXPOSURE:

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

HMIS RATING:

HEALTH--1 FLAMMABILITY--0 REACTIVITY--0 SPECIAL--NONE

POTENTIAL HEALTH EFFECTS:

INHALATION: Inhalation of vapor or mist can cause the following: headache, nausea, irritation of the nose, throat, and lungs.

EYES: Direct eye contact may cause physical or mechanical irritation.

SKIN: Prolonged or repeated skin contact may cause skin irritation, rash or itching.

INGESTION: Unlikely route of exposure. Adverse effects from ingestion may result.

SECTION IV: FIRST AID MEASURES

INHALATION: If respiratory tract irritation develops, move to fresh air.

EYES: If eyes become irritated, flush with water. Consult a physician if irritation persists.

SKIN: Wash affected area of contact thoroughly with soap and water. Consult a physician if irritation persists.

INGESTION: If swallowed, give two glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

SECTION V: FIRE FIGHTING MEASURES

FLASH POINT: None NONCOMBUSTIBLE

AUTOIGNITION TEMPERATURE: Not Applicable

LEL: Not Applicable **UEL:** Not Applicable

UNUSUAL HAZARDS: Material can splatter above 100°C / 212°F. Dried product can burn.

EXTINGUISHING AGENTS: Use extinguishing media appropriate for surrounding fire.

PERSONAL PROTECTIVE EQUIPMENT: Wear self-contained breathing apparatus (pressure-demand NIOSH approved or equivalent) and full protective gear.

SECTION VI: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Appropriate protective equipment must be worn when handling a spill of this material. Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see First Aid Measures for actions to follow.

PROCEDURES: Keep spectators away. Floor may be slippery; use care to avoid falling. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. **CAUTION:** Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Always dispose of waste materials in accordance with all State, Federal and Local Regulations.

SECTION VII: HANDLING AND STORAGE

STORAGE CONDITIONS: Keep from freezing; material may coagulate. The minimum recommended storage temperature for this material is 1°C / 34°F. The maximum recommended storage temperature for this material is 49°C / 120°F.

HANDLING (PERSONNEL): Monomer vapors can be evolved when material is heated during processing operations. See Exposure Controls / Personal Protection for types of ventilation required.

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

RESPIRATORY PROTECTION: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in 'Exposure Limit Information'. For airborne concentrations up to 10 times the exposure limit, wear a properly fitted NIOSH approved (or equivalent) half-mask, air purifying respirator. Air purifying respirators should be equipped with NIOSH approved (or equivalent) ammonia/methylamine cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

PROTECTIVE CLOTHING: Neoprene gloves may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Wear gloves, head coverings, boots and full body clothing as necessary to prevent skin irritation. Washable or disposable clothing may be used.

EYE PROTECTION: Use safety glasses with side shields (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed.

ADDITIONAL PROTECTIVE MEASURES: Facilities storing or utilizing this material should be equipped with an eyewash facility.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR VISCOSITY EVAPORATION RATE (BAC = 1) BOILING POINT (°F/°C) MELTING POINT (°F/°C) SPECIFIC GRAVITY (WATER = 1) pH VALUE (IN WATER) VAPOR PRESSURE (mm Hg.) VAPOR DENSITY (AIR-1) PERCENT (%) VOLATILE SOLUBILITY IN WATER	White Milky Liquid with Ammonia Odor 50 CPs Maximum <1 Water 100°C / 212°F Water 0°C / 32°F Water 1.0 – 1.2 9.5 – 10.0 17 mm Hg @ 20°C / 68°F Water < 1 Water 52-54% Water Dilutable
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SECTION X: STABILITY AND REACTIVITY

STABILITY: Stable under normal handling and storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

STABILITY CONDITIONS TO AVOID: Direct exposure to excess heat from flame. Keep from Freezing; material may coagulate.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Non known.

SECTION XI: TOXICOLOGICAL INFORMATION

ACUTE DATA:

The information shown in Hazards Identification, is based on the toxicity profiles for a number of acrylic emulsions that are compositionally similar to this product. Typical data are:

Oral LD50 - rat: >5000 mg/kg

Dermal LD50 - rabbit: >5000 mg/kg

Skin irritation - rabbit: practically non-irritating

Eye irritation - rabbit: inconsequential irritation

SECTION XII: ECOLOGICAL INFORMATION

Marine Pollutant: NL

(NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT: Coagulate the emulsion by the stepwise addition of the ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. Landfill or incinerate remaining solids in accordance with local, state and federal regulations.

SECTION XIV: TRANSPORTATION INFORMATION

USA DOT CLASS:

Non-Regulated

SECTION XV: REGULATORY INFORMATION

WORKPLACE CLASSIFICATION: This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200). This product is not a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

SARA TITLE 3: SECTION 311/312 CATEGORIZATIONS (40 CFR 370): This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

SARA TITLE 3: SECTION 313 INFORMATION (40CFR 372): This product does not contain any chemical which is listed in Section 313 at or above de minimis concentrations.

CERCLA INFORMATION (40CFR 302.4): Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

WASTE CLASSIFICATION: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity characteristic Leaching Procedure (TCLP).

UNITED STATES: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

PENNSYLVANIA: Any material listed as "Not Hazardous" in the CAS REG NO. Column of Composition/Information On Ingredients of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-know Act.

SECTION XV: OTHER INFORMATION

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*