



MATERIAL SAFETY DATA SHEET

MSDS IDENTIFICATION NAME: TYFO® WR-AFP
MSDS NUMBER: TYFO-WR-001

DATE: 08/02/11 **PAGE:** 1 OF 4
SUPERSEDES: NEW

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® WR-AFP
CHEMICAL FAMILY: Lightweight Gypsum Plaster (Experimental Blend)
CHEMICAL FORMULA: Blend of Gypsum, Vermiculite, Cement, Cellulose and other additives

SECTION II: COMPOSITION / INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS NUMBER	% BY WEIGHT	OSHA(PEL)	ACGIH(TLV)
Gypsum (Calcium Sulphate Hemi Hydrate)	7778-18-9	30-40	$\frac{15 \text{ mg/m}^3 \text{ (total)}}{5 \text{ mg/m}^3 \text{ (Respirable)}}$	10 mg/m ³ (Inhalable)
Vermiculite (refined and exfoliated)	1318-00-9	25-35	15 mg/m ³ (total)	5 mg/m ³ (Respirable)
Portland Cement	65997-15-1	30-40	5 mg/m ³	5 mg/m ³
Ceramic fibers	142844-00-6	10	Not Established	0.5 f/cc, 8 hr TWA
Cellulose and additives	NA	>10	Not Established	Not Established

Section II Notes: All Fyfe Fireproofing are mixtures of dry materials that contain variable amounts of free silica and other materials in dust form, which may become airborne during jobsite handling before adding water. Jobsite dust could assay more than 1% free silica which would require a reduction of the 15 mg/m³ total dust.

SECTION III: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

APPEARANCE AND ODOR: blend of grey gypsum-like material that resembles insulation.

PRIMARY ROUTE OF EXPOSURE:

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

HMIS RATING:

HEALTH--1 FLAMMABILITY--0 REACTIVITY--0 SPECIAL--NONE PERSONAL PROTECTION: B, E

POTENTIAL HEALTH EFFECTS:

RESPIRATORY TRACT (nose and throat): Fireproofing dust released in handling or mixing may cause irritation to the nose, throat, and respiratory tract. Symptoms include coughing, sneezing, and respiratory irritation. Chest pains may result. Long Term exposure may cause pneumoconiosis, dyspnea and decreased lung function.

EYES: Direct eye contact may cause physical or mechanical irritation. Prolonged contact may cause damage to the outer surface of the eye

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

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

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Repeated exposure may cause skin sensitization, skin irritation, and dermatitis. Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure of this product.

SECTION IV: FIRST AID MEASURES**RESPIRATORY TRACT (nose and throat):**

If respiratory tract irritation develops, move to dust free location. Get medical attention if the irritation continues.

EYES: If eyes become irritated, flush immediately with large amounts of lukewarm water for at least 15 minutes. Do not rub eyes. Get medical attention if irritation persists.

SKIN: If skin becomes irritated, remove soiled clothing. Do not rub or scratch exposed skin. Wash area of contact thoroughly with soap and water. Using a skin lotion after washing may be helpful. Do not re-use contaminated clothing until thoroughly cleaned.

INGESTION: If gastrointestinal tract irritation develops, move victim to dust free environment.

SECTION V: FIRE FIGHTING MEASURES

FLASH POINT: None **EXTINGUISHING MEDIA:** None **SPECIAL FIRE FIGHTING PROCEDURES:** None
UNUSUAL FIRE AND EXPLOSION HAZARDS: None **LEL:** None **UEL:** None **FLAMMABLE LIMITS:** None

SECTION VI: ACCIDENTAL RELEASE MEASURES

PROCEDURES IN CASE OF ACCIDENTAL RELEASE OF LEAKAGE: Clean up personnel should be equipped with rubber gloves, face mask and protective clothing. Minimize creating airborne dust. Dust suppressing cleaning methods such as wet sweeping or vacuuming should be used to clean the work area. Compressed air should not be used for cleaning. Collect in suitable container. **Always dispose of waste materials in accordance with all State, Federal and Local Regulations.**

SECTION VII: HANDLING AND STORAGE

RECOMMENDED STORAGE CONDITIONS: Store in a cool, dry place with adequate ventilation. Store in closed containers.

HANDLING (PERSONNEL): Avoid contact with skin. Use adequate ventilation. Local exhaust recommended to reduce dust levels. Goggles are required for application of wet mix ingredients and where exposure to excessive dust is likely. Do not use compressed air for clean-up.

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use engineering controls such as local exhaust ventilation, point of generation dust collection, and materials handling equipment designed to minimize airborne fiber emissions.

RESPIRATORY PROTECTION: Avoid prolonged exposure to dust. Use a NIOSH approved respirator when working in confined areas to prevent overexposure to dust. NIOSH Type TC-21C-XXX.

PROTECTIVE CLOTHING: Minimize contact to skin or clothing. Wear gloves, head coverings, boots and full body clothing as necessary to prevent skin irritation. Washable or disposable clothing may be used.

EYE PROTECTION: Wear chemical safety goggles or other forms of eye protection in compliance with appropriate OSHA standards to prevent eye irritation when applying wet ingredients or in presence of excessive dust. The use of contact lenses is not recommended, unless used in conjunction with appropriate eye protection. Do not touch eyes with soiled body parts or materials. If possible, have eye-washing facilities readily available where eye irritation can occur.

ADDITIONAL PROTECTIVE MEASURES: Ventilation systems are recommended when mixing in confined areas to control dust and particle concentration. Eye wash fountains and safety showers should be available for emergency use. Expanded Vermiculite is one of the mix ingredients. Vermiculite ore bodies also contain naturally occurring minerals in addition to vermiculite. These include tremolite and actinolite. Both of these minerals occur in two forms: fibrous, which is asbestosform, and massive, which is non-abestosform. The ore that we process has been tested by qualified environmental service and test groups to assure that there are “No Detectable levels of Asbestos Present.”

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION (CONTINUED)

PERSONAL PROTECTION EQUIPMENT:

RESPIRATORY PROTECTION RECOMMENDATIONS	
Respirable Airborne Fiber Concentration	Respirator Recommendation [†]
Not yet determined but expected to be below 5.0 f/cc based on operation	Half-face, air purifying respirator equipped with a NIOSH certified P100 particulate filter cartridge
“Reliably” less than 0.5 f/cc	Optional
0.5 f/cc to 5.0 f/cc	Half-face, air purifying respirator equipped with a NIOSH certified P100 particulate cartridge
5.0 f/cc to 25 f/cc	Full face-piece, air purifying respirator equipped with a NIOSH certified P100 particulate filter cartridge or PAPR
Greater than 25 f/cc	PAPR with tight-fitting full face-piece or a supplied air respirator in continuous flow mode
When individual workers request respiratory protection as a matter of personal comfort or choice where exposures are “reliably” below 0.5 f/cc	A NIOSH certified respirator, such as a disposable particulate respirator, or respirators with filter cartridges rated N95 or better

[†] The P100 recommendation is a conservative default choice; in some case, solid arguments can be made that other respirator types (e.g. N95, R99, etc.) may be suitable for some tasks or work environments. The P100 recommendation is not designed to limit informed choices, provided that respiratory protection decisions comply with 29 CFR 1910.134.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR	Dark grey powder mixture
ODOR THRESHOLD	Unknown
BULK DENSITY (lbs/ft³)	18-24
BOILING POINT (°F/°C)	Not Applicable
FREEZING POINT (°F/°C)	Not Applicable
SPECIFIC GRAVITY (WATER = 1)	Not Applicable
pH VALUE (IN WATER)	6 – 8
VAPOR PRESSURE (mm Hg.)	Not Applicable
VAPOR DENSITY (AIR-1)	Not Applicable
PERCENT (%) VOLATILE	Not Applicable
SOLUBILITY IN WATER	Slight

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 or electric arc welding and cutting. Remove fireproofing from metal substrate prior to such operations by scraping.

INCOMPATIBLE MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Excessive heat may release sulfur dioxide as decomposition product.

SECTION XI: TOXICOLOGICAL INFORMATION

No Data Available.

SECTION XII: ECOLOGICAL INFORMATION

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

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT:

To prevent materials from becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended.

DISPOSAL METHODS: It is the responsibility of the waste generator to comply with all federal, state, provincial and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the US Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

SECTION XIV: TRANSPORTATION INFORMATION

Surface Freight Classification: Wall Plaster
USA DOT CLASS: Nonhazardous
USA DOT ID#: Not Applicable
USA DOT LABEL: Not Applicable
CANADA Transportation of Dangerous Goods TDG CLASS: Nonhazardous

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*