FLAME TECH INC.

SAFETY DATA SHEET
Flame Guard-814
Commercial Firestopping Sealant

EVERKEM DIVERSIFIED PRODUCTS

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: Flame Guard-814

Product Codes(s): FG814, FG814-5, FG814-28

Synonym(s): Silicate-based caulk

REACH Registration Number: No data available

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Non-intumescent commercial firestopping sealant

Uses advised against: None known

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor

Everkem Diversified Products
5180 Indiana Avenue
Winston-Salem, NC 27106 USA
+1-800-638-3160

1.4 Emergency telephone number: +1-800-638-3160

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation (EC) No 1272/2008

Not a dangerous substance according to OSHA or to European Union Legislation

2.2 Label Elements

Not a dangerous substance according to GHS

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
15 - 40	Sodium Silicate	1344-09-8	215-687-4	----------	----------
30 - 70	Kaolin Clay*	1332-58-7	310-194-1	----------	----------

*Contains <1% crystalline silica (quartz) and <1% Titanium Dioxide

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention.

Eyes: Do not rub eyes. Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. Obtain immediate medical attention, preferably from an ophthalmologist.

Skin: Remove contaminated clothing. Quickly and gently remove excess product with a dry cloth or paper towel. Flush skin with lukewarm water for 15 minutes. Wash affected area with soap and water. Clean contaminated clothing and shoes before reuse. If irritation persists, seek medical advice.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures, if present. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs naturally, have the victim lean forward to reduce the risk of aspiration of material into the lungs. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes eye irritation. Symptoms may include redness, itching, swelling, tearing and pain. Causes mechanical irritation of the cornea.

Skin: May cause skin irritation with localized redness, itching and discomfort.

Inhalation: Vapor may cause irritation of the upper respiratory tract.

Ingestion: May cause irritation of the gastrointestinal system with nausea, vomiting and constipation.

Chronic: Persons with preexisting skin disorders or respiratory impairment may be more susceptible to the effects of this material. Chronic skin exposure may dry skin or cause dermatitis. Titanium Dioxide is a suspected animal carcinogen. Crystalline Silica (quartz) has been determined to be carcinogenic as respirable dust. Refer to Section 11.2.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use extinguishing media such as water fog or water spray, dry chemical, carbon dioxide and foam.

Unsuitable methods of extinction: None known

5.2 Special hazards arising from the substance or mixture

Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Material does not present an explosion hazard.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, firefighters should control runoff water to prevent environmental contamination. Fire residues and contaminated extinguishing water must be disposed of in accordance with local regulations.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Remove all sources of ignition. Ventilate the area. Wear appropriate protective clothing and equipment designated in Section 8. Spilled material creates a slip hazard.

6.2 Environmental precautions

Avoid dispersal of spilled material and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Cover drains and contain spill. Cover spill with non-combustible absorbent. Wipe or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled material, even in small quantities, may present a slip hazard. Final cleaning may require use of steam or washing with detergents. Place saturated absorbent or cleaning materials into an approved container for proper disposal. Observe possible material restrictions (refer to Sections 7.2 and 10.5). Dispose of in accordance with national, state and local regulations.

6.4 Reference to other sections

For indications about waste treatment, see Section 13.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Do not get in eyes or on skin or clothing. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear appropriate respiratory protection.

Advice on protection against fire and explosion

Product does not present a fire or explosion hazard.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in cool, dry, well-ventilated storage areas. Transfer only to approved containers having correct labeling. Protect containers against physical damage. Keep containers tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not reuse empty containers as they may retain product residues. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

CAS Number	Ingredient	OSHA PEL	ACGIH TLV	NIOSH
1344-09-8	Sodium Silicate	5 mg/m^3 Respirable Fraction* 15 mg/m^3 Total Dust	10 mg/m^3 Inhalable Particulate 3 mg/m^3 Respirable Fraction	----------
1332-58-7	Kaolin Clay	15 mg/m^3 (total dust) 5 mg/m^3 (respirable fraction)	2 mg/m^3 (respirable fraction)	10 mg/m^3 (total dust) 5 mg/m^3 (respirable fraction)
13463-67-7	Titanium Dioxide	10 mg/m^3 (total dust) 5 mg/m^3 (respirable fraction)	10 ppm (as dust)	----------
14808-60-7	Crystalline Silica	10 mg/m^3 (respirable dust) 50 µg/m^3 (respirable dust)**	0.025 mg/m^3 (respirable fraction)	0.05 mg/m^3 (respirable fraction)

*Related to particles; otherwise not regulated **PEL for construction applications

8.2 Exposure controls

Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with unperforated side shields during use. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166. It is recommended that contact lenses be removed before using this sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses, causing severe eye irritation.

Hand Protection: Wear Nitrile rubber or Neoprene gloves or those recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Other protective equipment: Long sleeve shirts and trousers without cuffs; boots if the situation calls for them.

Respiratory Protection: None needed under ambient conditions with adequate local exhaust. Always use an approved respirator when vapors are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-faced supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

NOTE: This material may contain materials classified as nuisance particulates (listed as "Dust") which may be present at hazardous levels only during sanding, abrading or removal of dried films. If no specific dusts are listed in Section 8, the applicable limits for unknown nuisance dusts are ACGIH TLV 10 mg/m^3 (total dust), 3 mg/m^3 (respirable fraction), OSHA PEL 15 mg/m^3 (total dust), 5 mg/m^3 (respirable fraction).

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Opaque red paste
Odor	Mild
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	No data available
Freezing/Melting Point, Range	No data available
Initial Boiling Point	No data available
Evaporation Rate	Slower than ether
Flammability (solid, gas)	Not applicable
Flash Point	Not applicable
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	No data available
Upper Explosive Limit (UEL)	No data available
Vapor Pressure	No data available
Vapor Density	>1 (Air = 1)
Specific Gravity	1.76 - 1.81
Viscosity	No data available
Solubility in Water	No data available
Partition Coefficient: n-octanol/water	Not determined
Oxidizing Properties	Not applicable
Explosive Properties	Not applicable
Volatiles by Weight @ 21 ºF	35 - 39%
VOC Content by Volume	0 g/l

9.2 Other data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization does not occur.

10.4 Conditions to avoid
High temperatures, incompatible materials

10.5 Incompatible materials
Acids, oxidizing agents, ammonium salts, chemically active metals

10.6 Hazardous decomposition products
Thermal decomposition products include silicone oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute Oral Toxicity
Expected to have low acute oral toxicity

Acute inhalation toxicity
Expected to have low acute inhalation toxicity

Acute dermal toxicity
Expected to have low acute dermal toxicity

Skin irritation
May cause skin irritation.

Eye irritation
Causes eye irritation.

Sensitization
No data available

Genotoxicity in vitro
No data available

Mutagenicity
No data available

Specific organ toxicity - single exposure
No data available

Specific organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Further information
Titanium Dioxide: IARC Group 2B Carcinogen - *Possibly carcinogenic to humans*. Not listed as a carcinogen by ACGIH, OSHA or NTP. The IARC summary concluded, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials such as paint".

Crystalline silica (quartz) is considered a hazard by inhalation and there may be a relationship between silicosis and certain cancers. IARC Group 1 carcinogen - *Carcinogenic to humans (listed under Crystalline Silica inhaled in the form of quartz or cristobalite from occupational sources*. ACGIH A2 carcinogen - *Suspected human carcinogen*; NTP - *Known carcinogen (select carcinogen)*; NIOSH - *Potential occupational carcinogen.*

No data is available regarding the mutagenicity or teratogenicity of this product nor is there available data that indicates that it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity
The ecotoxicity of this product has not been evaluated. It is expected to have low toxicity to aquatic organisms with little impact on the aquatic environment based on its composition.

12.2 Persistence and degradability
Organic materials in this product is expected to biodegrade over time.

12.3 Bioaccumulation potential
Not expected to bioaccumulate.

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
Additional ecological information
Do not allow material to run into surface waters, wastewater or soil.
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized whenever possible. Although this product is classified as non-hazardous under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261 this material and its container should be disposed of in a safe way as empty containers may contain product residue. Leave chemicals in original containers. No mixing with other waste. Handle unclean containers like the product itself. Incinerate in an approved facility. Do not incinerate closed container. Dispose of in accordance with the Directive 2008/98/EC as well as other national, federal, state/provincial and local laws and regulations.

RCRA P-Series: No listing

RCRA U-Series: No listing

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

NOT REGULATED FOR TRANSPORT

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is not classified as hazardous in accordance with OSHA 29 CFR 1910-1200.

Toxic Substance Control Act (TSCA) Inventory: All components of this product are listed or exempt from listing on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2) and Chemical Code Number:
None listed

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number:
None listed

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals:
None listed

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Chronic Health Hazard

SARA 313 Information: None of the components of this product are subject to the reporting requirements established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: None of the components of the product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: None of the components of the product are subject to the reporting requirements of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains no CERCLA reportable substances.

Clean Air Act (CAA)
This product does not contain any substances listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).
This product does not contain any Class 1 Ozone depletors.
This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

Other U.S. State Inventories
Kaolin Clay (CAS #1332-58-7) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: ID, MN, NJ, PA, RI, WA.

Titanium Dioxide (CAS #113463-67-7) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: IL, MA, MN, NJ, PA, RI.

Crystalline silica (as quartz), contained at ~0.1%, is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: ID, MA, NJ, PA, RI, WA.

Canada

WHMIS Hazard Symbol and Classification: Uncontrolled product according to WHMIS classification criteria.

Canadian National Pollutant Release Inventory (NPRI): None of the components of this product are listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1 (low hazard to waters)

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

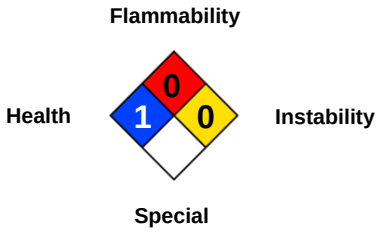
Hazardous Material Information System (HMIS)

Health	* 1
Flammability	0
Physical Hazard	0
Personal Protection	B

HMIS Hazard Rating Legend
0 = Minimal 1 = Slight 2 = Moderate 3 = Serious
4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend
0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme

National Fire Protection Association (NFPA)



Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
CAS	Chemical Abstract Services
CFR	Code of Federal Regulations
DOT	Department of Transportation
EMS Guide	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency
ERG	Emergency Response Guide Book
FDA	Food and DrugAdministration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association half maximal
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
mppcf	Millions of Particles Per Cubic Foot
NA	North America
NAERG	North American Emergency Response Guide Book
NIOSH	National Institute for Occupational Safety
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulating and Toxic
PEL	Permissible exposure limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
RID	Dangerous Goods by Rail
RQ	Reportable Quantity
TCC/Tag	Tagliabue Closed Cup
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulating
WHMIS	Workplace Hazardous Materials Information System

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