
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

L&M CONSTRUCTION CHEMICALS, INC.
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PRODUCT NAME: FGS HARDENER PLUS

PRODUCT USE DESCRIPTION: Chemical Hardener/Densifier

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical and Common Name	OSHA PEL	ACGIH TLV	CAS	% wt
#1: Proprietary Solution		Not Estab	Not Estab	Proprietary <50%

Unlisted ingredients are not hazardous as defined in 29 CFR 1910.1200, and are considered the trade secret of L&M Construction Chemicals, Inc.

3. HAZARDS IDENTIFICATION

Emergency Overview: Clear to hazy, colorless, odorless liquid. High pH product is harmful to aquatic life. Noncombustible. Reacts with acids, ammonium salts, reactive metals and some organics.

Eye Contact: Causes moderate irritation to the eyes.

Skin Contact: Causes moderate irritation to the skin.

Inhalation: Spray mist irritating to respiratory tract.

Ingestion: May cause irritation to mouth, esophagus, and stomach.

Chronic hazards: No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.

Physical hazards: Dries to form glass like film which can cut skin. Spilled material is very slippery. Can etch glass if not promptly removed.

4. FIRST AID MEASURES

Eye: In case of contact, immediately flush eyes with water for at least 15 minutes. Get medical attention.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is conscious, give a cupful of water. Never give anything to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammable limits: This material is noncombustible

Extinguishing Media: This material is compatible with all extinguishing media.

Hazards to fire-fighters: See Section 3 for hazard information when this material is present in the area of a fire.

Fire-fighting equipment: The following protective equipment is recommended when this material is present in the area of a fire: chemical goggles, protective clothing, chemical resistant gloves, and rubber boots.

6. ACCIDENTAL RELEASE MEASURES

Personal protection: Wear chemical goggles, protective clothing, chemical resistant gloves, and rubber boots.

Environmental Hazards: Sinks and mixes with water. High pH of this material is harmful to aquatic life, see Section 12. Only water will evaporate from a spill of this material.

Small spill cleanup: Mop up and neutralize liquid, then discharge to sanitary sewer with plenty of water in accordance with federal, state, and local regulations or permits.

Large spill cleanup: Keep unnecessary people away; isolate area and deny entry. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike and store discharged material, if possible. Use sand or earth to contain spilled material. If containment is impossible, neutralize contaminated area and flush with large quantities of water. Observe federal, state and local regulations in disposal.

CERCLA RQ: There are no CERCLA Reportable Quantity for this material.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly cleanup spills.

Storage: Keep containers closed. Store in clean or plastic containers. Separate from acids, reactive metals, and ammonium salts. Storage temperature 0-95° C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering controls: Use with adequate ventilation. Keep container closed. Safety shower and eyewash station should be within direct access.

Respiratory protection: Use a NIOSH-approved dust and mist respirator where spray mist occurs. Observe OSHA regulations for respiratory use (29 C.F.R. para. 1910.134)

Skin protection: Wear body-covering protective clothing and gloves.

Eye protection: Wear chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Transparent light green liquid.

Odor: Odorless

pH: 11-12

Specific gravity: 1.16 g/cm³, 20° Be, 9.75 lbs/gal

Solubility in water: Miscible

10. STABILITY AND REACTIVITY

Stability: This material is stable under all conditions of use and storage.

Conditions to avoid: None

Materials to avoid: Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead, and zinc.

11. TOXICOLOGICAL INFORMATION

Acute Data: When tested for eye and skin irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin. Human experience indicates that skin irritation occurs, particularly, when this material gets on clothes at the collar, cuffs or other areas where contact and abrasion may occur.

12. ECOLOGICAL INFORMATION

Environmental Fate: This material is not persistent in aquatic systems, but its high pH, when undiluted or unneutralized, is harmful to aquatic life. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural silica. It does not contribute to BOD. This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges.

Physical/Chemical: Sinks and mixes with water. Only water will evaporate from this material.

13. DISPOSAL CONSIDERATIONS

Classification: Disposed material is not a hazardous waste.

Disposal Method: Flush liquid down sanitary sewer with plenty of water. Observe all federal, state and local regulations.

14. TRANSPORTATION INFORMATION

DOT UN Status: This material is not regulated hazardous material for transportation.

Non dangerous for sea, air and road transportation.

15. REGULATORY INFORMATION

CERCLA: No CERCLA Reportable Quantity has been established for this material.

SARA TITLE III: Not an Extremely Hazardous Substance under 302. Not a Toxic Chemical under 313. Hazard Categories under 311/312:
Acute

TSCA: All ingredients of this material are listed on the TSCA inventory.

16. OTHER INFORMATION

Prepared by: Stuart R. Wood

The information on the Safety Data Sheet is believed to be accurate and it is the best information available to L&M Construction Chemicals, Inc. This document is intended only as a guide to the appropriate precautions for handling a chemical by trained personnel. L&M Construction Chemicals, Inc. makes no warranty of merchantability or any other warranty, express or implied with respect to such information or the product to which it relates, and we assume no liability resulting from the use or handling of the product to which this Safety Data Sheet relates. Users and handlers of this product should make their own investigation to determine the suitability of the information provided herein for their own purposes.