

SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier:
GreenFire® Heat Barrier

Recommended Use:
For suppression of Class A and Class B fires.

Manufacturer:
Fire Suppression Innovations
101 S. Kraemer Blvd. Suite 100 Placentia, CA.
91024
Telephone number: +1 (888) 766 7327

In case of emergency:
Call your physician or Poison Control Center
1-800-222-1222




2. HAZARDS IDENTIFICATION

Hazard Statements:

H280 Contains Gas Under Pressure: May explode if heated.

Simple Asphyxiant: May displace oxygen and cause rapid suffocation.

H320 Warning: Causes Eye Irritation (GHS Category 2B – Least Concern)

 **H361 Warning:** Suspected of damaging fertility or the unborn child (GHS Category 2 – Least Concern) See section 11 for more details.

Precautionary Statements:

P102: Keep out of reach of children.

P103: Read label before use.

P264: Wash hands thoroughly after handling.

P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P337+P313: If irritation persists: Get medical advice/attention.

P202: Do not handle until all safety precautions have been read and understood.

P281: Wear personal protective equipment as required. (See Section 8)

P308+P313: If exposed or concerned: Get medical advice/attention

P501: Dispose of contents/container in accordance with local regulations. (See section 13)

3. COMPOSITION

Ingredients: Proprietary mixture/trade secret as defined by 29CFR 1910.1200 Contains natural boron compounds, food grade wetting agents, anionic detergents.

4. FIRST AID MEASURES

Skin Contact: Wash with water. Prolonged exposure may cause dryness or mild irritation.

Eye Contact: Flush with water. Seek medical attention if irritation persists.

Inhalation: Remove person to fresh air. If symptoms such as nose or throat irritation are observed, seek medical attention.

Ingestion: Swallowing small amounts (less than 6 tablespoons) will cause no harm to healthy adults. If larger amounts are swallowed, drink two glasses of water and seek medical attention.

Symptoms of eye contact: Redness, tearing, burning.

Symptoms of ingestion: Nausea, Vomiting, diarrhea.

Indication of immediate medical attention or special treatment needed: No data available.

5. FIREFIGHTING MEASURES

Product is non-flammable, non-combustible, non-explosive, intrinsically flame retardant. No special protective equipment, precautions, hazards, or extinguishing media.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Product can be very slippery! Use extreme caution walking on smooth surfaces that are wet with GreenFire®.

Methods and materials for cleanup: Sorbents may be used. In most municipalities product may simply be flushed into sewer or storm drain.

7. HANDLING AND STORAGE

Precautions for safe handling: No unusual precautions necessary.

Precautions for Storage: No unusual precautions necessary

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The Derived No-Effect Level of exposure for workers and general public are as follows:

Acute oral ingestion for systemic effect: 28mg product/kg bw/day

Long-term oral ingestion for systemic effect: 28mg product/kg bw/day

Long-term dermal exposure for systemic effect: 5757mg product/kg bw/day

If product is used in a way that creates a mist of particles suspended in air, the DNELs are:

Long-term inhalation for a systemic effect: 123mg product/m³

Acute or long-term inhalation for local effect: 473mg product/m³

Engineering controls and Personal Protective Equipment:

Always use eye protection and suitable gloves. In circumstances where large amounts of mist is likely to be created, use appropriate ventilation and/or particulate respirator type N95 or better.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Transparent straw colored or clear liquid

Odor: Insignificant

pH: 6.8

Freezing point: ~30°F

Boiling point: ~215°F

Flash point/Flammability/Auto ignition temperature: non-flammable

Evaporation rate: similar to water

Vapor pressure: similar to water

Vapor density: similar to water

Relative density: 1.04g/cc

Solubility: miscible in water and alcohols

Partition coefficient: hydrophilic

Decomposition temperature: dehydration begins at approximately 215°F

Viscosity: ~3.2 cps@18°C

10 . STABILITY AND REACTIVITY

Reactivity: No additional information.

Chemical Stability: Stable under normal conditions.

Possibility of hazardous reactions: Avoid contact with strong reducing agents such as metal hydrides or alkali metals. These can react to generate flammable hydrogen gas.

Conditions to avoid: Avoid incompatible materials.

Incompatible materials: Strong reducing agents such as alkali metals, metal hydrides.

Hazardous decomposition products: Hydrogen, boranes, ammonia.

11 . TOXICOLOGICAL INFORMATION

Acute toxicity: Low acute toxicity - LD50 in rats is over >100,000 mg product/kg of body weight.

Skin corrosion/irritation: Prolonged exposure may cause skin dryness or mild irritation.

Serious eye damage/irritation: GHS Category 2b Eye Irritant. Direct exposure to undiluted product may cause mild transient eye irritation.

Respiratory or skin sensitization: Not a skin sensitizer.

Germ Cell mutagenicity/carcinogenicity: No component in this product in concentrations of %0.1 or greater, is identified as a carcinogen, potential carcinogen, anticipated carcinogen, or probable carcinogen according to OSHA, NTP, ACGIH, and IARC.

Reproductive Toxicity: Recent epidemiology studies under the conditions of normal occupational exposure indicated no effect on fertility. Animal feeding studies at extremely high doses (doses equivalent to drinking more than 3 liters of this product per day, every day for 6 weeks) have demonstrated effects on fertility and testes as well as developmental effects on the fetus including fetal weight loss and minor skeletal variations.

Specific Target Organ Toxicity:

-Single exposure: N/A

-Repeated exposure: N/A

Aspiration hazard: Low acute inhalation toxicity; LC50 in rats is 38,000mg/m³

12 . ECOLOGICAL INFORMATION

Part 1: Non-naturally occurring portion of product

Persistence and biodegradability: This portion of the product biodegrades rapidly with an average of 95% decomposition after 28 days.

Bio-accumulating potential: Not significantly bio-accumulative.

Mobility in soil: Water soluble and leachable through normal soil.

Other adverse Effects: If sprayed on green foliage, this portion of the product contains soaps that will interfere with the natural waxy coating of plant leaves. This will cause the leaves to dehydrate, wither, and die. Do not spray this product on green foliage.

Part 2: Naturally occurring portion of the product

Persistence and biodegradability: This portion of the product is a ubiquitous and naturally occurring compound. It does not biodegrade but rather naturally disperses until reaching normal environmental levels.

Bio-accumulation potential: Not significantly bio-accumulative

Mobility in soil: Water soluble and is leachable through normal soil.

Other adverse effects: No data available.

AQUATIC TOXICITY OF PRODUCT

Algal Toxicity: OECD 201 Method, Pseudokirchneriella subcapitata, 72hrs, EC50=1,994 ppm

Invertebrate Toxicity: OECD 202 Method, Daphnia magna, 48hrs, LC50=1,958 ppm

Fish Toxicity: OECD 203 Method, Pimephales promelas, 96hrs, LC50 >322 ppm

13 . DISPOSAL CONSIDERATIONS

Disposal considerations: Always dispose of in accordance with all local, state, and federal regulations. In most municipalities, contents may simply be flushed down the drain and container may be recycled or disposed of as solid waste.

14. TRANSPORT INFORMATION

US DOT: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

15. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of Sara Title III section 302.

Sara 313: No chemicals in this material are subject to the reporting requirements of Sara Title III section 313.

California Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Disclaimer of liability

The information in this SDS was obtained from sources which Fire Suppression Innovations believes are reliable. However, the information is provided without any warranty, express or implied, regarding its accuracy, reliability or completeness. The conditions or methods of handling, storage, use, or disposal of the product are beyond the control of Fire Suppression Innovations. For this and other reasons, Fire Suppression Innovations does not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. It is the user's responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. Please note that the provision of this SDS being not mandatory, only an English version of this document is available.

Document last revised February, 2024.