

SAFETY DATA SHEET
FIRE RETARDANT COATING
FlameSeal TB-Pro



SECTION 1- IDENTIFICATION

1.1 Product Identifier

Product Name: TB-Pro

Product Item Numbers: TB-Pro
ID SDS: TB-Pro SDS

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

General Use: Fire Retardant Coating
Uses advised against: No further information available

1.3 Details of the supplier and of the safety data sheet:

Manufacturer: FlameSeal LLC
9420 Knight Road
Houston, TX 77045
713-668-4291 (Monday-Friday, 8:00AM - 5:00PM CST)

1.4 Emergency telephonenumber numbers:

In the U.S.A: CHEMTREC (24 hours) 1-800-424-9300
In Canada: CHEMTREC (24 hours) 1-800-424-9300

SECTION 2- HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Mixture
Classification: Acute Toxicity- Category 4
Skin Irritation- Category 2
Eye Irritation- Category 2B

2.2 Label elements

Hazard Symbols:



Signal Word: WARNING

Hazard Statements: H332 Harmful if inhaled
H315 Causes skin irritation
H320 Causes eye irritation

Prevention: P202 Do not handle until all safety precautions have been read and understood
P261 Avoid breathing mist/spray
P262 Do not get in eyes, on skin, or on clothing
P264 Wash hands and other skin areas exposed to material thoroughly after handling
P280 Wear protective gloves, protective clothing and eye protection
P285 In case of inadequate ventilation: wear respiratory protection

Response: P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment: Seek immediate medical advice. Refer to product label and Section 4 of this SDS
P333+P313 If skin irritation or rash occurs: Get medical attention
P337+P313 If eye irritation persists: Get medical attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P362 Take off contaminated clothing and wash before reuse.

Storage: P202+ P235+P404 Store in a dry place. Keep cool. Store in a closed container.

Disposal: P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Other hazards: There are no other hazards otherwise classified that have been identified

SECTION 3-COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical characterization (preparation):

% by Weight	Ingredient	CAS No.
15-35	Ammonium Polyphosphate	68333-79-9
7-13	Pentaerythritol	115-77-5
7-13	Melamine	108-78-1
5-10	Titanium Dioxide	13463-67-7
0-5	Aluminum Trihydrate	21645-51-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the 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 vapors 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 a trained individual. Loosen tight fitting clothing such as a jacket or tie. Seek medical attention immediately.

Eye: Immediately flush eyes with large amounts of water for at least 15 minutes, holding the eyes open with fingers and occasionally lifting the upper and lower lids. Use lukewarm water if possible. If present and easy to do, remove contact lenses. If irritation persists, get medical attention.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Gently wipe product from skin with a damp cloth and continue rinsing for 15 minutes. Wash clothing before reuse. Call a physician if irritation persists.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3 Notes to the physician

If case of an accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible).

SECTION 5- FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use ABC dry chemical, carbon dioxide, alcohol resistant foams and water spray

Unsuitable methods of extinction: None

5.2 Special hazards arising from the substance or mixture

Closed container may rupture due to the buildup of pressure when exposed to extreme heat. Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Hazardous decomposition products may include and are not limited to: Carbon monoxide, Carbon dioxide, Oxides of titanium, oxides of phosphorous, and other products of incomplete combustion.

5.3 Advice for firefighters

Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool.

SECTION 6- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment recommended in Section 8.

6.2 Environmental precautions

Avoid dispersal of spilled material or run-off 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 spilled material with a large quantity of inert absorbent. Collect material and place into an approved, open-head metal container. Clean contaminated area with soap and water.

6.4 Reference to other sections

For indications about waste treatment and disposal, see Section 13

See Section 7 for information about safe handling

SECTION 7- HANDLING AND STORAGE

7.1 Precautions for safe handling

Observe label precautions, do not use until all safety precautions have been read and understood. Wear all appropriate protective equipment specified in Section 8. Protect from high airborne concentrations of mist resulting from spray. Avoid contact with eyes and skin. Keep container closed when not in use. Do not reuse empty containers. Recommend using in a well-ventilated area. Keep out of reach of children.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area and away from incompatible materials (see Section 10.5). Avoid extreme heat or cold. Store above 45°F. Empty container contains residual product which may exhibit hazards of product. Do not reuse empty containers. **KEEP OUT OF REACH OF CHILDREN.**

SECTION 8- EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control Parameters

Ingredient	CAS Number	OSHA-PEL	ACGIH-TLV	Other- NIOSH
Pentaerythritol	115-77-5	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA (total dust)	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable)
Titanium Dioxide	13463-67-7	15 mg/m ³ TWA	10 mg/m ³ TWA	50000 mg/m ³ IDHL
Aluminum Trihydrate	21645-51-2	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA (total dust) 3 mg/m ³ TWA (respirable)	

8.2 Exposure controls:

Engineering Controls: Use local and general exhaust ventilation to control levels of exposure.

Eye/face Protection: Wear protective goggles or safety glasses with side shields.

Hand Protection: Use chemically resistant gloves (i.e. Nitrile gloves). Nitrile/butadiene rubber, butyl rubber, polyethylene, PVC (vinyl), or neoprene gloves are also effective. Glove selection should take into account potential body reactions to certain materials and manufacturer's instructions for use. Break through time of selected gloves must be greater than the intended use period.

Other Protective Equipment: Use clothing that protects against dermal exposure. Appropriate protective clothing varies depending on the potential for exposure. To ensure proper skin protection, wear PPE in such a manner that no skin is exposed.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guidelines. Use products only in a well-ventilated area. Engineering and administrative (work practices) controls should be implemented to protect the workers. If atmospheric levels are expected to exceed the exposure levels, a respirator should be used in cases where individuals are exposed to airborne mists of the material.

Hygiene Measures: An eye wash station or portable eye wash station should be in the area. Wash hands thoroughly after use, before eating, drinking or using the lavatory. Employees/Users should be educated and trained in the safe use and handling of this product.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	
General Physical Form	White, Charcoal Black, or Gray Liquid
Odor	Mild odor
Odor Threshold	No data available
pH	7-9
Melting Point/Freezing Point	No data available
Initial Boiling Point and Boiling Range	100°C (212°F), liquid phase
Flash Point	>200°F (>93.3°C).
Evaporation Rate	>1 (water=1)
Flammability	Not available
Lower Flammability/Explosive Limit	Not available
Upper Flammability/Explosive Limit	Not available
Vapor Pressure of Liquid	Not available
Vapor Density	No data available
Relative Density/Specific Gravity	~ 1.3 +/- @ 25°C (Water = 1)
Solubility	Not available
Partition coefficient: n-octanol/water	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	2300-3500 CPS
% Volatiles	20-30%

SECTION 10- STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions of use and recommended storage conditions. See Section 7 for storage recommendations.

10.3 Possibility of hazardous reactions

Exposure to elevated temperatures can cause containers to rupture or explode. Contents are under pressure.

10.4 Conditions to avoid

Avoid high temperatures or freezing. Avoid strong acid, bases and oxidizing agents

10.5 Incompatible materials

Strong acids, bases, and oxidizers.

10.6 Hazardous decomposition products

See Section 5.2 for hazardous decomposition products due to combustion.

SECTION 11- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Signs and Symptoms of Exposure based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Mist or vapor may cause irritation of the nose, throat and respiratory tract. Symptoms may include sore throat, coughing, headache, nausea and shortness of breath.

Skin Contact:

Cause skin irritation. Symptoms may include localized redness and discomfort.

Eye Contact:

May cause eye irritation. Symptoms may include redness, swelling, stinging, and tearing. May cause temporary corneal injury. Product vapor may cause eye irritation with symptoms of burning and tearing.

Ingestion:

May cause gastrointestinal irritation: stomach distress, nausea, or vomiting. Repeated ingestion may be harmful.

Acute toxicity:

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect

Sensitization: Based on available data, the classification criteria are not met

IARC (International Agency for Research on Cancer): None of the ingredients are listed.

NTP (National Toxicology Program): None of the ingredients are listed

OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed

Probable routes of exposure: Inhalation, eye contact and skin contact.

Acute effects (acute toxicity, irritation and corrosivity): Irritating to eyes and skin.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met

Specific organ toxicity- single exposure

No data available

Specific organ toxicity- repeated exposure

No data available

Aspiration hazard

No data available

Other: This product has not been tested. The above information has been derived from the properties of the individual components.

SECTION 12- ECOLOGICAL INFORMATION

12.1 Ecotoxicity

The ecotoxicity of this product has not been experimentally determined. However, it is expected to have low acute aquatic toxicity based on the acute aquatic toxicity of the individual components and their concentrations in this composition.

12.2 Persistence and degradability

Not established.

12.3 Bioaccumulation potential

Not established.

12.4 Mobility

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*****Always wear proper protective equipment when disposing of product***

The user of this material has the responsibility to dispose of empty containers, unused material and residues in compliance to all applicable federal, state, international and local regulations regarding the treatment, storage, and disposal for hazardous and nonhazardous wastes. Check with your local waste disposal service for guidance.

SECTION 14- TRANSPORTATION

Note: Transportation information is for reference only. Customer is urged to consult 49 CFR 100-177 for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

Ground	Not regulated for Transport
Air	Not regulated for Transport
Water	Not regulated for Transport

SECTION 15- REGULATORY**15.1 Safety, health, and environmental regulations/legislations specific for the substance or mixture****U.S. Federal Regulations:**

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200

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

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Acute Health Hazard

SARA 313 Information: No components of the product are subject to reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: No components of the product exceed the threshold (de minimis) reporting levels established by these sections of the Title III of SARA.

SARA 302/304 Emergency Planning & Notification: No components of the product exceed the threshold (de minimis) report levels established by these sections of the Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): None of the substances in this product are contained in levels that exceed the threshold (de minimis) reporting levels established by CERCLA

Clean Air Act (CAA) – This product does not have any components listed as a Hazardous Air Pollutant (HAP) designated in CAA Section 112 (b). This product does not contain any Class 1 or Class 2 Ozone depleters.

Clean Water Act (CWA) – This products does not have any components listed as a Hazardous Substance under the CWA. None of the chemicals in these products are listed as Priority Pollutants under the CWA. None of the chemicals listed in these products are listed as Toxic Pollutants under the CWA.

Global Chemical Inventory Lists:

United States: Toxic Substance Control Act (TSCA)- Yes

15.2 Chemical safety assessment: For this product a chemical safety assessment was not carried out

SECTION 16- OTHER

NFPA: Health Hazard 1; Flammability 0; Reactivity 0

HMIS: Health Hazard 1; Flammability 0; Physical Hazard 0

Hazard Rating: 0=minimal, 1= slight, 2=moderate, 3=severe, 4= extreme

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Revision-August 22, 2022 (Date of Preparation) Version 1