ForceField® FireGuard™ E-84 Intumescent Paint

SAFETY DATA SHEET

COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS 29CFR1910.1200

SECTION 1 COMPANY AND PRODUCT IDENTIFICATION

Product Name: ForceField FireGuard E-84 Intumescent Paint Date Printed: 8/28/2018
Product Use/Class: Intumescent Paint Product ID: F FGDE-84

Supplier:	Shield Industries, Inc.	Manufacturer:	Shield Industries, Inc.
Address:	131 Smokehill Lane Woodstock, GA 30188 - USA	Address:	131 Smokehill Lane Woodstock, GA 30188 - USA
Telephone:	770-517-6869	24 Hour Emergency Hotline:	800-535-5053

SECTION 2 HAZARDS IDENTIFICATION

		Category
Physical hazards:	Not classified as hazardous.	Not applicable
Health hazards:	None	Not applicable
	Skin irritation	Not applicable
	Specific target organ toxicity, single exposure	Not applicable

Environmental hazards: Not classified.
OSHA defined hazards: Not classified.

Label elements: None Required.

Signal word: None Required.

Hazard statement: None Required

Precautionary statements: None Required

Hazard(s) not otherwise classified (HNOC): Not classified as PBT or vPvB.

Supplemental information: None.

SECTION 3 COMPOSITION/INFORMATION ON COMPONENTS

COMPONENTS	CAS NUMBER	%
Water	7732-18-5	25 - 50 %
Titanium dioxide	13463-67-7	10 - 15 %
Ammonium polyphosphate	68333-79-9	20 - 25 %
1,3,5-Triazine-2,4,6-triamine	108-78-1	5 - 10 %
Pentaerythritol	115-77-5	5 - 10 %
Polymer (Proprietary)	Trade secret *	10 - 15 %

* Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Additional Information:

Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below:

None

SECTION 4 FIRST AID MEASURES

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Keep eyes wide open and continue rinsing for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin: Not normally required. If on skin, wash thoroughly with soap and water. If on clothes, remove clothing. Get medical attention if irritation develops and persists.

Inhalation: Not normally expected as a route of exposure. Treat symptomatically. If symptoms of overexposure develop, remove to fresh air. If symptoms persist, consult a physician.

Ingestion: Consult a physician or local Poison Control Center immediately. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed:

None known.

Indication of immediate medical attention and special treatment needed:

None known.

General information:

Show this safety data sheet to the doctor in attendance, if medical assistance is sought.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media:

In case of fire: Use CO^2, dry chemical, or foam.

Unsuitable extinguishing media:

None anticipated.

Specific hazards arising from the chemical:

Combustion or thermal decomposition will evolve toxic and/or irritant vapours. Forms oxides of carbon, nitrogen, phosphorus, silicon, titanium, as well as ammonia, amines, hydrogen cyanide and aldehydes.

Special protective equipment and precautions for firefighters:

Firefighters should use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and self-contained breathing apparatus (SCBA).

Fire-fighting equipment/instructions:

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up.

Specific methods:

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

General fire hazards:

None known.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Avoid skin contact. Do not get in eyes. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up.

Environmental precautions:

Avoid release to the environment. Contain spillage with sand. Do not allow to enter drains, sewers, or waterways. Inform appropriate managerial or supervisory personnel of all environmental releases.

Methods and materials for containment and cleaning up:

Contain spillages and then collect with sand, earth, diatomaceous earth, vermiculite, or any other suitable adsorbent material. Collect spillage. Transfer to a container for disposal or recovery. Following product recovery, flush area with water. If possible prevent water running into sewers.

Reference to other sections:

For waste disposal, see section 13 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Wear appropriate personal protective equipment. Smoking, eating and drinking should be prohibited in the application area. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Advice on protection against fire and explosion:

None – Product is non-combustible

Conditions for safe storage, including any incompatibilities:

Keep cool. Do not store at temperatures exceeding 122 °F (50 °C). Protect from freezing. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Avoid storing in the presence of strong acids.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits:

US. ACGIH Threshold Limit Values

Components	CAS	Type	Value

None established. Unlikely to be hazardous by inhalation.

Appropriate engineering controls:

Not normally required.

Individual protection measures, such as personal protective equipment:

Eye/face protection:

Wear safety glasses with side shields (or goggles).

Hand protection:

Wear appropriate chemical resistant gloves (Butyl rubber, Neoprene, or Natural rubber). Check with protective equipment manufacturer's data.

Skin protection/Other:

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection:

Not normally required.

Thermal hazards:

Not normally required.

General hygiene considerations:

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls:

Do not allow to enter drains, sewers, or waterways.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Physical state:	Liquid
Form:	Viscous, opaque emulsion.
Color:	White to off-white.
Odor:	Characteristic, Mild.
Odor threshold:	Not available.
pH:	8.0 – 9.0
Melting point/freezing point:	Not available.
Initial boiling point and boiling range	Not available.
Flash point:	> 200 °F (93 °C)
Evaporation rate:	Aproximately 1 (water = 1)
Flammability (solid, gas):	Not applicable.
Upper/lower flammability or explosive limits:	
Flammability limit – lower (%):	Not available.
Flammability limit – upper (%):	Not available.
Explosive limit - lower (%):	Not explosive.
Explosive limit - upper (%):	Not explosive.
Vapor pressure:	Not available.
Relative Vapor density:	Not available.
Relative density:	1.35 +/- 0.02
Solubility (water):	Dispersible in water.
Partition coefficient (n-octanol/water):	Not available.
Auto-ignition temperature:	Not applicable.
Decomposition temperature:	Not available.
Viscosity (kinematic cSt @ 40 °C):	Not available.
Explosive properties:	Not explosive.
Oxidizing properties:	Not oxidizing.
Other information:	
VOC Level:	< 0.3% (weight/weight)
VOC Content:	4.08 g/l
Solids:	52 – 55 %

SECTION 10 STABILITY AND REACTIVITY

Reactivity:

The product is stable and non-reactive under normal ambient conditions of use, storage and transport.

Chemical stability:

Material is stable under normal conditions.

Possibility of hazardous reactions:

None anticipated.

Conditions to avoid:

Avoid contact with heat, and incompatible materials.

Incompatible materials:

Strong acids.

Hazardous decomposition products:

At temperatures over 200 C, or under fire conditions, thermal decomposition will evolve toxic and irritant vapours. Forms: oxides of carbon, nitrogen, phosphorus, silicon, titanium, as well as ammonia, amines, hydrogen cyanide, aldehydes and other low molecular weight organic compounds.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Skin contact: May cause very mild skin irritation.
Eye contact: Direct eye contact may **c**ause mild irritation to the eyes

Symptoms related to the physical, chemical and toxicological characteristics:

None known.

Information on toxicological effects of components:

Acute toxicity:

Components	CAS#	Test	Species	Test Results
Titanium dioxide	13463-67-7	Acute Oral LD50	Rat	> 5,000 mg/kg
		Inhalation Risk LC50	Rat	> 6.82 mg/l (4 hr. air)

Skin corrosion/irritation: Not likely to cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation: Not likely to cause eye irritation.

Respiratory or skin sensitization:

Respiratory sensitization: Not expected to cause respiratory sensitation.
Skin sensitization: This product is not expected to cause skin sensitization.

Germ cell mutagenicity: No data available.

Carcinogenicity: Product is not expected to be a carcinogen.

(Component data):	IARC*	ACGIH	NTP	OSHA
Titanium dioxide (CAS# 13463-67-7)	2B	No	No	No

* IRAC Group 2B – Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Not listed.

Repeated dose toxicity:

No data.

Specific target organ toxicity - single exposure:

No data.

Teratogenicity:

No data.

Aspiration hazard:

No data.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Toxicity to aquatic life is expected to be minimal based upon components.

Acute Toxicity (Component data):

Components/CAS	Test	Species	Test Results
Titanium Dioxide	Aquatic Fish LC50	Fathead minnow	> 1,000 mg/l, 96 hr.
	Aquatic invertebrates LC50		≥ 500 mg/l, 48 hr.

Long Term Toxicity:
No data available.

Persistence and degradability:
No data available.

Bioaccumulative potential:
No data available.

Mobility in soil:
No data available.

Results of PBT and vPvB assessment:
Not classified as PBT or vPvB.

Other adverse effects:
None known.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment/disposal instructions:
Disposal should be in accordance with local, state, or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

Waste from residues / unused products:
Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. Dispose of in accordance with local regulations.

Contaminated packaging:
Exercise caution as empty containers or liners may retain some product residues. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 TRANSPORT INFORMATION

DOT

UN number: Not applicable
UN proper shipping name: Refractory Paint
Transport hazard class(es):
Class: Not applicable
Subsidiary risk: -
Label(s): Not applicable
Packing group: Not applicable
Special precautions for user:

Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Environmental hazards: No

Special provisions: None Assigned

Packaging exceptions:

None – Not classified as dangerous for transportation

Packaging bulk:

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

IATA

UN number: Not regulated

UN proper shipping name: Refractory Paint

Transport hazard class(es):

Class Not regulated

Subsidiary risk -

Label(s) Not regulated

Packing group Not regulated

Environmental hazards No

ERG Code Not regulated

Special precautions for user:

Read safety instructions, SDS and emergency procedures before handling. Read Safety instructions, SDS and emergency procedures before handling.

Packaging bulk:

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not regulated

IMDG

UN number: Not applicable

UN proper shipping name: Refractory Paint

Transport hazard class(es):

Class: Not applicable

Subsidiary risk: -

Label(s): Not applicable

Packing group: Not applicable

Environmental hazards:

Marine pollutant: No

Special precautions for user:

Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

Packaging bulk:

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

SECTION 15 REGULATORY INFORMATION

US federal regulations:

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List or polymer exempt.

CERCLA Hazardous Substance List (40 CFR 302.4)

No Listed materials.

SARA 311/312 – Superfund Amendments and Reauthorization Act of 1986:

Hazard categories:

Immediate Hazard	No
Delayed Hazard	No
Fire Hazard	No
Sudden Release	No
Reactivity	No

SARA 313 – Toxic Chemicals (40 CFR 372):

No Listed materials.

SARA 302 Threshold Planning Quantity:

Not regulated.

Other federal regulations:

Clean Air Act (CAA) Ozone-Depletion Potential:

This product neither contains, nor was manufactured with a Class I, or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A+B).

US state regulations:

California Proposition 65:

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive effects.

NEW JERSEY:

Titanium dioxide	CAS 13463-67-7
Pentaerythritol	CAS 115-77-5

PENNSYLVANIA:

Titanium dioxide	CAS 13463-67-7
1,3,5-Triazine 2,4,6-Triamine	CAS 108-78-1
Pentaerythritol	CAS 115-77-5

SECTION 16 OTHER INFORMATION

NFPA RATING: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

Personal protection rating to be supplied by user depending on use conditions.

PREPARATION INFORMATION:
DATE CREATED: 01/01/2006 LAST REVISION: 08/28/2018
CREATED/REVISED BY: R. Lasnik

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End of SDS