



Flame Seal Products, Inc.  
15200 West Drive  
Houston, TX 77053 USA  
713-668-4291 (office)  
713-668-1724 (fax)  
[www.flameseal.com](http://www.flameseal.com)

# Safety Data Sheet

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## 1 PRODUCT AND COMPANY INFORMATION

### 1.1 Product Identifiers

Product Name : **Flame Seal IB Coating**

Brand : Flame Seal Products

Cas # : NA/mixture

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

Identified uses Water based fire retardant paint.

### 1.3 Details of the supplier of the safety data sheet

Company: Flame Seal Products, Inc.  
15200 West Drive  
Houston, TX 77053 USA

Telephone #: 713-668-4291

Fax #: 713-668-1724

### 1.4 Emergency telephone number

Emergency #: 800-424-9300

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## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**GHS Classification in accordance with 29 CFR 1910(OSHA HCS)**

Eye irritant, Skin irritant

For the full text of the H-statements mentioned in this section, see section 16.

### 2.2 GHS Label Elements, including precautionary statements

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**HAZARD STATEMENTS:****WARNING!**

H320 : 2B

Causes eye irritation

H316 : 3

May cause mild skin irritation

**Precautionary Statements:**

P103

Read label before use.

P280

Wear eye protection/face protection.

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. Continue rinsing.

P332+P313

If skin irritation occurs: Get medical advice/attention

P337+P313

If eye irritation persists: Get medical advice/attention

P404

Store in a closed container.

P501

Dispose of contents/container using approved waste  
disposal facility

**2.3 Other Hazards:**

H303

May be harmful if swallowed.

For the full text of the H-statements mentioned in this section, see section 16.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Formula:

water based latex paint with intumescent additives

**Hazardous Components****Component**

Acrylamide-ethylene-vinylchloride copolymer eye irritation (2B), mild skin irritation (3) <3%

Proprietary – Wacker Co.

Titanium dioxide

See Section 11 for hazards

CAS # 13463-67-7

Melamine	Nuisance and combustible dust in dry form	<20%
CAS # 108-78-1		
Pentaerythritol	Nuisance and combustible dust in dry form	<20%
CAS # 115-77-5		

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice** - Move out of dangerous area. Consult a physician. Show this Safety Data sheet to physician.

**If inhaled** – Not expected to be an issue.

**In case of skin contact** – Wash off soap and plenty of water. If irritation occurs, get medical advice/attention.

**In case of eye contact** – Flush eyes with plenty of fresh water while holding eyelids open. Remove contact lenses if worn. If eye irritation persists, get medical advice/attention.

**If swallowed** – Do not induce vomiting. Never give anything by mouth to an unconscious person. Flush mouth with water. If conscious give water to further dilute chemical. Consult physician.

**4.2 Most important symptoms and effects, both acute and delayed.** – The most important known symptoms and effects are described in the labelling (see section 2.2) or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed.** – No data available.

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## 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media** – Not combustible (use water spray, fog, foam, dry chemicals, CO2 or other agents as appropriate for material in surrounding fire).

**5.2 Special hazards arising from substance or mixture** – heating and/or burning may liberate small amounts of ammonia

**5.3 Advice for firefighters** - Not combustible (use safety equipment which is suitable for materials in surrounding fire).

**5.4 Further information** – No data available.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing mist. Ensure adequate ventilation.

Evacuate personnel from affected area. For personal protection, see section 8.

### 6.2 Environmental precautions

Prevent further leakage or spillage, if safe to do so. Keep out of drains.

### 6.3 Methods and materials for containment and cleaning up

Confine spilled material and absorb with sand, sawdust, earth or other available solids. Sweep up and place in a suitable container for disposal.

### 6.4 Reference to other sections

See section 13 for further disposal info.

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## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling** –Wear appropriate protective equipment. Provide adequate ventilation. See sections 2.2 and 8.

**7.2 Conditions for safe storage, including any incompatibles** – Keep container tightly sealed when not in use. Use good industrial practices to avoid spills. Exposure to strong bases and/or heat may liberate ammonia.

### 7.3 Specified end use

ICC certified Ignition Barrier alternative for tested spray applied polyurethane foam in attics and crawl spaces.

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## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### Component:

Titanium Dioxide: respirable form

CAS # :13463-67-7

EC # : 236-675-5

ACGIH: TLV-TWA: 10mg/m<sup>3</sup>

OSHA:15 mg/m<sup>3</sup>

Total dust 8hr TWA  
respirable fraction 1mg/m<sup>3</sup>

**Engineering controls** – Handle in accordance with good industrial and safety practices. Wash hands after handling.

**Personal Protection Equipment**

**Respiratory Protection (Specify Type):** For heavy mist exposure, use a NIOSH/MSHA approved respirator suitable for use with organic vapors if proper ventilation cannot be provided

**Remediation or sanding** – Contains titanium dioxide which is considered a potential human carcinogen in respirable form. Do not breath dust. Use measures to control dust to published exposure level limits. Otherwise wear NIOSH suitable respirator for hazardous dust – N100, P100, or R100 filters.

**Protective Gloves:** Wear impervious gloves as necessary to avoid excessive skin contact (i.e. rubber or neoprene)

**Eye Protection:** Protective glasses or goggles in heavy mist areas

**Other Protective Equipment:** Adequate clothing to minimize direct contact with skin

**Local Exhaust:** Use exhaust fans if necessary to control mist or vapor

**Mechanical (general):** Normal room ventilation

**Ventilation**

**Special:** N/A

a) Appearance	White liquid
b) Odor	Slight amine
c) Odor threshold	NA
d) ph	7.5 – 8.5
e) melting/freezing point	NA/~32F
f) Initial boiling point	~212F
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability	None
j) Upper/lower flamm limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	1.26 – 1.32 g/cm <sup>3</sup>
n) Water solubility	Partially soluble
o) Partition coefficient n-octanol/water	No data available
p) Auto ignition temp	None
q) Decomposition temp	No data available
r) Viscosity	90 - 120 Ku

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- |                         |                   |
|-------------------------|-------------------|
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity** – No data available

**10.2 Chemical Stability** – Stable under recommended storage conditions

**10.3 Possibility of hazardous reactions** - none known

**10.4 Conditions to avoid** – Evaporation – Keep container sealed tightly when not in use

**10.5 Incompatible materials** – strong bases and alkalis

**10.6 Hazardous decomposition products** – ammonia, nitrous oxides

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity** - Ld50 (rat) > 2000 mg/kg Conclusion by analogy.

**Inhalation** - Not established. Not expected to be harmful. If necessary, use respirator if Adequate ventilation is not possible to keep exposure to particulate matter to a minimum in heavy mist areas when spraying.

**Dermal** - Not established, not expected to be harmful. May be irritating with continual contact.

**Skin corrosion/irritation** – No data available

**Serious eye damage/eye irritation** - May cause moderate eye irritation if exposed

**Respiratory or skin sensitization** – Prolonged exposure may cause skin reddening

**Germ cell mutagenicity** – No data available.

**Carcinogenicity:**

**Titanium Dioxide – respirable form**

**IARC** : Group 2B: Possibly carcinogenic to humans.

(a) Although IARC has classified titanium dioxide as a possible carcinogenic to humans (2B), their summary concludes: "**No significant exposure to titanium dioxide is thought to occur during the use of products which titanium dioxide is bound to other materials, such as paints.**"

(b) **OSHA does not regulate titanium dioxide as a carcinogen.** However, under 29CFR 1910.1200 the SDS must convey the fact that titanium dioxide is a potential carcinogen to rats. See additional information below.

**Note** : **Normal application procedures for this product pose no hazard as to the release of respirable titanium dioxide dust, but grinding or sanding dried films of this product may yield respirable titanium dioxide.** Use appropriate protection.

**Reproductive toxicity:**

No chemicals present in the product are known to cause fertility issues.

**Specific organ toxicity – single exposure** – No data available

**Specific organ toxicity – repeated exposure** – No data available

**Aspiration hazard** – No data available.

**Additional Information:** In lifetime inhalation studies rats were exposed for 2 years to Titanium Dioxide Pigment – **Dry Grades** at 10, 50 and 250 mg/m<sup>3</sup> of **respirable** TiO<sub>2</sub>. Slight lung fibrosis was observed at 50 and 250 mg/m<sup>3</sup> levels. Microscopic lung tumors were also observed in 13 percent of the rats exposed to 250 mg/m<sup>3</sup>, an exposure level that caused lung overloading and impairment of rat lung's clearance mechanisms. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO<sub>2</sub> particles exposure was also found to be much more severe in rats than in other rodent species.

In February 2006, IARC re-evaluated Titanium dioxide as pertaining to Group 2B: "possibly carcinogenic to humans", based upon inadequate evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide. IARC evaluation guidelines consider the generation of tumors, in 2 different studies within the same animal species, to be adequate criteria for an assessment of sufficient evidence.

The conclusions of several epidemiology studies on more than 20000 TiO<sub>2</sub> industry workers in Europe and the USA did not suggest a

carcinogenic effect of TiO<sub>2</sub> **dust** on the human lung. Mortality from other chronic diseases, including other respiratory diseases was also not associated with exposure to TiO<sub>2</sub> dust.

**Based upon all available study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experienced in the workplace.**

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to fish:                      LD50 – Rainbow trout (*Oncorhynchus mykiss*) > 150mg/l -96h  
LD50 -Fathead minnow (*Pimephalas promelas*) > 150mg/l -96h

Toxicity to daphnia and              No data available.  
Other aquatic invertebrates

Conclusions drawn from relevant literature and documentation from similar products.

**12.2 Persistence and degradability** – Polymer component not readily biodegradable. Elimination by Activated sludge. Separation by flocculation is possible.

**12.3 Bioaccumulation potential** – No adverse effects expected.

**12.4 Mobility in soil** – No adverse effects expected.

**12.5 Results of PBT and vPvP assessment** – Not required. Not conducted.

**12.6 Other adverse effects** – No data available

## 13. DISPOSAL CONSIDERATIONS

**Product:**                      Liquid - Collect and reclaim or dispose in sealed containers at licensed  
Waste disposal site.  
Dried product – Should be disposable as non hazardous solid waste.  
Check local regulations.

**Contaminated packaging** – Empty containers may retain product residue and should be handled accordingly. Empty containers should be taken to an approved waste



handling site for recycling or disposal. Do not re-use containers.

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## 14. TRANSPORT INFORMATION

**DOT (US) – Not dangerous goods**

**IMDG – Not dangerous goods**

**IATA – Not dangerous goods**

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## 15. REGULATORY INFORMATION

**SARA 302 Components –** No chemicals in this product are subject to the reporting requirements of SARA Title III, section 302

**SARA 313 Components –** This product does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels established by SARA Title III, section 313

**SARA 311/312 –** Chronic health hazard

Massachusetts, Pennsylvania, New Jersey Right to Know Components:

Melamine	CAS # 108-78-1
Titanium dioxide	CAS # 13463-67-7

### California Prop. 65

**WARNING!** This product contains a chemical known to the state of California

to cause cancer in respirable form. Titanium dioxide.

This product contains no chemicals known by the State of California to cause birth defects or any other productive harm.

**WHMIS – D2A – Carcinogen as respirable dust. Titanium Dioxide**

**IARC – Group 2B – Possible human carcinogen – as respirable dust. Titanium Dioxide**

**RTECS # :** XR 2275000 – Titanium Dioxide

**HAPS** No HAPS are present in this product at reportable levels.

**CLEAN WATER ACT** – Section 311 lists phosphorous as a hazardous substance, which if discharged into or upon water, will present an imminent and substantial danger to public welfare. Spills of  $\geq$  5000 pounds (approx. 2000,000 pounds of FS-IB) must be reported to the National Response Center @ 1-800-424-8802

## 16. OTHER INFORMATION

### Full text of H-statements referred to under sections 2 and 3

H320 : 2B Causes eye irritation.

H316 : 3 Cause mild skin irritation.

Hazard pictograms not required per Tables 3.2.5, 3.2.5.1, 3.3.5, 3.3.5.1 of the GHS of Classification and Labeling of Chemicals Fifth Revised Edition.

Hazard conclusions drawn from relevant literature and documentation from similar products.

Titanium dioxide included in the Candidate List of Substances of Very High Concern (SVHC)

according to Regulation(EC) No. 1907/2006(REACH) – Respirable form.

### HMIS Rating

Health hazard	1
Chronic Health Hazard	*
Flammability	0
Physical Hazard	0

### NFPA

Health hazard	0
Fire hazard	0
Reactivity hazard	0

The information in this document is based on the present state of Flame Seal Products' knowledge and the availability of SDSs of the actual raw materials used in the product. It is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantees to the properties of the product. Flame Seal Products shall not be held liable for any damage from handling or from contact with the above product.

**Preparation Information**

Flame Seal Products

713-668-4291

SDS v 1.0

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