SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Water based intumescent paint for foam plastic
Product code : DC315

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fireproof coating for foam plastic

1.3. Supplier

International Fireproof Technology, Inc.
17528 Von Karman Ave.
Irvine, CA 92614
T 949-975-8588
tom@painttoprotect.com (Tom Hsiang)

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification
Acute toxicity (oral), Category 4 : H302 Harmful if swallowed.
Serious eye damage/eye irritation, Category 2B : H320 Causes eye irritation
Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling
Hazard pictograms (GHS-US) : None
Signal word (GHS-US) : None
Hazard statements (GHS-US) : The mixture does not meet the criteria for classification.

Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - If swallowed: Call a POISON CENTER, a doctor if you feel unwell
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards which do not result in classification

other hazards which do not result in classification : Titanium dioxide is in a form that is not available for respiration.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

The manufacturer lists no ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.
**SECTION 4: First-aid measures**

4.1. Description of first aid measures

First-aid measures after inhalation: Move the affected person away from the contaminated area and into the fresh air. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact: May cause mild irritation in sensitive individuals.

Symptoms/effects after eye contact: Causes eye irritation.

Symptoms/effects after ingestion: Harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

**SECTION 5: Fire-fighting measures**

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: None known.

5.2. Specific hazards arising from the chemical

Fire hazard: Not classified as flammable but will burn. On combustion forms: Carbon oxides (CO, CO2). Nitrogen oxides. Metal oxides.

Explosion hazard: Heating will cause pressure rise with risk of bursting and subsequent explosion.

Reactivity: Stable under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent firefighting water from entering the environment.

Protective equipment for firefighters: Do not enter fire area without proper protective equipment, including respiratory protection. Refer to section 8.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Avoid contact with eyes. Avoid breathing mist or vapor. Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel. Wear personal protective equipment as required.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection. Wear approved self-contained breathing apparatus (set on positive pressure mode). Refer to section 8.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Small spills: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spills: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4. Reference to other sections

Refer to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Provide good ventilation in process area to prevent formation of vapor. Avoid contact with eyes. Avoid breathing mist or vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Keep only in the original container in a cool, well ventilated place away from incompatible materials. Keep container closed when not in use.

Incompatible materials


Storage temperature

≈ 5 - 35 °C (Use up as soon as possible after opening the lid)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ammonium polyphosphate (68333-79-9)

Not applicable

Titanium dioxide (13463-67-7)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Local name</th>
<th>Titanium dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACGIH TWA (mg/m³)</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Remark (ACGIH)</td>
<td>LRT irr; A4</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Regulatory reference</td>
<td>ACGIH 2017</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>OSHA</td>
<td>Regulatory reference (US-OSHA)</td>
<td>OSHA</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls

Provide adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Impervious gloves e.g. PVC, nitrile rubber, butyl rubber

Eye protection:

Chemical goggles or safety glasses

Respiratory protection:
In case of inadequate ventilation wear respiratory protection. NIOSH/MSHA approved air purifying respirator should be used if operating conditions produce airborne concentrations that exceed exposure limits for any individual components. If conditions immediately dangerous to life or health exist, use NIOSH/MSHA self-contained breathing apparatus (SCBA).

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>White, grey</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild emulsion odor</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 8</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.35±0.1 (Specific gravity)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Miscible with water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>8000 - 20000 cP</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

Volatile components %: 30 – 45 %

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions of use.

10.2. Chemical stability
Stable under normal conditions of use.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

...
**Water based intumescent paint for foam plastic**

**Safety Data Sheet**

Acute toxicity: Oral: Harmful if swallowed.

### Water based intumescent paint for foam plastic

<table>
<thead>
<tr>
<th>ATE (oral)</th>
<th>1666 mg/kg bodyweight</th>
</tr>
</thead>
</table>

Skin corrosion/irritation: Not classified

| pH: 6 - 8 |

Serious eye damage/irritation: Causes eye irritation.

| pH: 6 - 8 |

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

<table>
<thead>
<tr>
<th>IARC group</th>
<th>2B - Possibly carcinogenic to humans</th>
</tr>
</thead>
</table>

**Titanium dioxide (13463-67-7)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>2B - Possibly carcinogenic to humans</th>
</tr>
</thead>
</table>

In OSHA Hazard Communication Carcinogen list: Yes

**Reproductive toxicity**: Not classified

**Specific target organ toxicity (single exposure)**: Not classified

**Specific target organ toxicity (repeated exposure)**: Not classified

**Aspiration hazard**: Not classified

Likely routes of exposure: Ingestion. Inhalation. Skin and Eye contact.

**Symptoms/effects after skin contact**: May cause mild irritation in sensitive individuals.

**Symptoms/effects after eye contact**: Causes eye irritation.

**Symptoms/effects after ingestion**: Inhalation of titanium dioxide dust may cause cancer, however due to the physical form of the product, inhalation of dust is not likely. Expected to be a low ingestion hazard.

### SECTION 12: Ecological information

**12.1. Toxicity**

Ecology - general: The product components are not classified as environmentally hazardous.

**Ammonium polyphosphate (68333-79-9)**

<table>
<thead>
<tr>
<th>LC50 fish 1</th>
<th>&gt; 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 2</td>
<td>123 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

**Water based intumescent paint for foam plastic**

Persistence and degradability: Not established.

**12.3. Bioaccumulative potential**

**Water based intumescent paint for foam plastic**

Bioaccumulative potential: Not established.

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Other information: Avoid release to the environment.

### SECTION 13: Disposal considerations

**13.1. Disposal methods**

Product/Packaging disposal recommendations: Dispose of contents/container to comply with applicable local, national and international regulation, a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT

Not regulated

Transportation of Dangerous Goods
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Ammonium polyphosphate (68333-79-9)
Listed on the Canadian DSL (Domestic Substances List)

Titanium dioxide (13463-67-7)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Ammonium polyphosphate (68333-79-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Titanium dioxide (13463-67-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Ammonium polyphosphate (68333-79-9)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on Turkish inventory of chemical
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Titanium dioxide (13463-67-7)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on Turkish inventory of chemical
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations
Water based intumescent paint for foam plastic
Safety Data Sheet

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as toxins. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information
Date of Issue: 8 December 2017
Other information: None.

Abbreviations and acronyms:

| PVC     | Polyvinyl chloride |

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.