PANNIER CORPORATION
207 Sandusky Street
Pittsburgh, PA 15212
USA
Product Code: FES 4181
Product Name: YELLOW PAINT (FES)
Product Use: Paint
Not recommended for: Consumer Use

Section 2 - Hazards Identification

GHS Ratings

<table>
<thead>
<tr>
<th>Property</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquid</td>
<td>2</td>
<td>Flash point &lt; 23°C and initial boiling point &gt; 35°C (95°F)</td>
</tr>
<tr>
<td>Eye corrosive</td>
<td>2A</td>
<td>Eye irritant: Subcategory 2A, Reversible in 21 days</td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>1</td>
<td>Skin sensitizer</td>
</tr>
</tbody>
</table>

GHS Hazards

H225  Highly flammable liquid and vapors
H317  May cause an allergic skin reaction.
H319  Causes serious eye irritation.

GHS Precautions

P210   Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233   Keep container tightly closed
P240   Ground/bond container and receiving equipment
P241   Use explosion-proof electrical/ventilating/light/manufacturer/equipment
P242   Use only non-sparking tools
P243   Take precautionary measures against static discharge
P261   Avoid breathing dust/fume/gas/mist/vapors/spray
P264   Wash contact area thoroughly after handling.
P272   Contaminated work clothing should not be allowed out of the workplace
P280   Wear protective gloves/protective clothing/eye protection/face protection
P321   Specific treatment (see supplemental first aid instruction on this label)
P363   Wash contaminated clothing before reuse
P302+P352 IF ON SKIN: wash with plenty of water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse SKIN with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P337+P313 IF eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use ... to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.
P501   Dispose of contents/container in accordance with local/regional/national/international regulations.

Signal Word: Danger

SDS for: 4181
Section 3 - Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>50.00% - 60.00%</td>
</tr>
<tr>
<td>Poly(Ethyl methacrylate/Methacrylic acid)</td>
<td>28572-98-7</td>
<td>14.00%</td>
</tr>
<tr>
<td>Titanium (IV) dioxide</td>
<td>13463-67-7</td>
<td>5.00% - 10.00%</td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>141-78-6</td>
<td>5.00% - 10.00%</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>1.00% - 5.00%</td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

INHALATION - Move affected person to fresh air, rest in a half upright position, and loosen clothing. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Seek medical advice after significant exposure.

EYE CONTACT - Flush with large amounts of water for at least 15 minutes. Lift eyelids occasionally. Get prompt medical attention.

SKIN - Wash thoroughly with soap and water immediately. Remove all contaminated clothing immediately. Seek medical advice if irritation persists.

INGESTION - Seek medical advice. The decision to induce vomiting or not must be made by a physician after careful consideration of all materials ingested. Risk of aspiration into lungs.

Section 5 - Fire Fighting Measures

**Suitable Extinguishing Media**

Carbon Dioxide---Dry Chemical---Foam---Water Fog

Use water for cooling material stored in vicinity of fire.

**Explosion Hazards**

Vapors are heavier than air and may travel along the ground to an ignition source some distance from material handling point. Ignition sources include pilot lights, smoking, heaters, electric motors, sparks from electrical switches and static discharges.

CAUTION: Never use cutting torch on empty containers! Residual solvent vapor in empty container may explode. Application to hot surfaces requires special precautions. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain Medical
Attention.

**Hazardous Combustion Products**

N/A

**Recommended Fire Equipment**

Use self-contained breathing apparatus with a full-face piece operated in a pressure-demand or other positive pressure mode. Wear protective clothing.

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### Section 6 - Accidental Release Measures

**Non-emergency personnel:** Evacuate and isolate the area and prevent access. Remove ignition sources. No flares, smoking or flames in hazard area. Notify management. Avoid breathing vapor or mist and put on protective equipment. Control source of the leak. Ventilate.

**Emergency responders:** See section 8 for any specialized clothing recommendations. Also reference the information for non-emergency personnel

**Environmental precautions:** Prevent further leakage or spillage if possible. Do not allow the material to spread to drains, sewers, water supplies, or soil.

**Small Spill:** Stop leak if possible and move containers from the spill area. Water soluble: dilute with water and mop up. Water Insoluble: Cover spill area with a suitable absorbent inert material (Kitty Litter, Oil-Dri, etc.) and dispose of in an appropriate metal waste container. Dispose of material through a licensed waste disposal contractor.

**Large Spill:** Stop leak if possible and move containers from the spill area. Approach release from upwind. Contain spillage and with non-combustible absorbent material and place in appropriate disposal container according to local regulations. Dispose of material through a licensed waste disposal contractor. Report spill to appropriate governing agencies if applicable.

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### Section 7 - Handling and Storage

**Precautions for Safe Handling**

Keep away from food, drink and heat. Keep away from sources of ignition. No smoking. Do not breathe vapor. Avoid contact with skin and eyes. Never use pressure to empty. Take precautionary measures against static discharges.

Storage temperature-

- **Minimum:** do not freeze
- **Maximum:** 40°C (104°F)

Storage Period- See technical data sheet.

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### Section 8 - Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
</table>

SDS for: 4181
<table>
<thead>
<tr>
<th>Ethanol 64-17-5</th>
<th>1000 ppm TWA; 1900 mg/m3 TWA</th>
<th>1000 ppm STEL</th>
<th>NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(Ethyl methacrylate/Methacrylic acid) 28572-98-7</td>
<td>15 mg/m3 PEL (Total Dust) 5 mg/m3 TWA (Respirable Dust)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Titanium (IV) dioxide 13463-67-7</td>
<td>15 mg/m3 TWA (total dust)</td>
<td>10 mg/m3 TWA</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethyl acetate 141-78-6</td>
<td>400 ppm TWA; 1400 mg/m3 TWA</td>
<td>400 ppm TWA</td>
<td>NIOSH: 400 ppm TWA; 1400 mg/m3 TWA</td>
</tr>
<tr>
<td>Isopropanol 67-63-0</td>
<td>400 ppm TWA; 980 mg/m3 TWA</td>
<td>400 ppm STEL 200 ppm TWA</td>
<td>NIOSH: 400 ppm TWA; 980 mg/m3 TWA 500 ppm STEL; 1225 mg/m3 STEL</td>
</tr>
</tbody>
</table>

**Engineering Controls:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other controls to keep air containment concentration below current applicable OSHA permissible exposure limit or ACGIH TLV limit, and volatiles below lower explosive limit. Heavy solvent vapors should be removed from the lower levels of area, and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered. Remove decomposition products formed during welding or flame cutting of surfaces coated with this product. For baking finishes - vent vapors emitted on heating.

**Environmental Controls:** Emissions should comply with environmental protection legislation.

**Individual Protection Measures:**

*Hygiene measures* - Wash hands, forearms, etc. after handling chemical products, before eating, smoking, and using the lavatory, and the end of the work period. Use appropriate techniques when removing potentially contaminated clothing and wash before reusing. Know the locations of eyewash and safety showers.

*Respiratory Protection* - Provide adequate ventilation to keep exposure below permissible limits. If a risk assessment deems necessary, operator is to use a properly fitted, air purifying or supplied air respirator. Respirator selection must be based on known/anticipated exposure levels, the hazards of the product, and the safe working limits of the respirator.

*Skin and Body Protection* - Wear chemical resistant gloves (nitrile) and paint suits when necessary, based on risk assessment. The most suitable glove must be chosen in consultation with the gloves supplier who can inform about the breakthrough time of the glove material. PPE for the body should be selected based on the risks of the task being performed and approved by a specialist. Appropriate footwear should also be approved.

*Eye/Face Protection* - Wear approved chemical safety goggles where exposure to vapor or contact with eyes is possible. Eye wash stations should also be made available. If inhalation hazard exists, a risk assessment will determine if a full face respirator may be required.

**Section 9 - Physical and Chemical Properties**

Information on basic physical and chemical properties:

| Viscosity: Not determined | pH: N/A |

SDS for: 4181
Section 10 - Stability and Reactivity

Stability and reactivity profile
This material is considered stable
Hazardous polymerization will not occur.

The following materials should be avoided in contact with the mixture
- Oxidizing agents
- Strong acids

Hazardous decomposition products
- Carbon oxides
- Titanium/titanium oxides

Section 11 - Toxicological Information

Mixture Toxicity
Inhalation Toxicity LC50: 270mg/L

Component Toxicity
- 141-78-6 Ethyl acetate
  Inhalation LC50: 1,500 ppm (Mouse)
- 67-63-0 Isopropanol
  Dermal LD50: 4,059 mg/kg (Rabbit)

LC50 and LD50 toxicity for this product are merely estimates and have yet to be determined. For individual component ecotoxicity, please refer to Section 11.

Possible Routes of Entry
- Inhalation
- Skin Contact
- Eye Contact
- Ingestion

Potential Target Organs
- Blood
- Eyes
- Liver
- Central Nervous System
- Reproductive System
- Skin
- Respiratory System

Effects of Overexposure
Not Available

The following components are possible carcinogens
*Materials labeled a carcinogen in dust form are supplied in solution, thus eliminating the hazard.

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
</table>

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Section 12 - Ecological Information

Mixture Ecotoxicity
Toxicity- Do not release into environment. May cause long term adverse effects.
Persistence and degradability- N/A
Bioaccumulative potential- N/A
Mobility in soil- N/A

Component Ecotoxicity

Ethanol
96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

Ethyl acetate
96 Hr LC50 Pimephales promelas: 220 - 250 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 484 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 352 - 500 mg/L [semi-static]
48 Hr EC50 Daphnia magna: 560 mg/L [Static]

Isopropanol
96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L
48 Hr EC50 Daphnia magna: 13299 mg/L
96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L

Section 13 - Disposal Considerations
Dispose of in accordance with federal, state and local regulations. Controlled incineration is recommended for disposal of unused product. Prevent contamination of soil, drains and surface waters. Dispose of large containers to a licensed reconditioner. Dispose of small containers in compliance with local regulations.

Section 14 - Transport Information

Agency | Proper Shipping Name | UN Number | Packing Group | Hazard Class
--- | --- | --- | --- | ---
N/A | N/A | N/A | N/A | N/A

Section 15 - Regulatory Information

The following chemicals are listed in California Title 8 CCR Sections as Hazardous Substances 67-63-0 Isopropanol
- 141-78-6 Ethyl acetate
- 64-17-5 Ethanol

The following chemicals are listed in California Title 8 CCR Sections 5200-5220 as Carcinogens.
- None

The following chemicals are listed in California Title 8 CCR Section 5203 as Carcinogens
- None

The following chemicals are listed in California Title 8 CCR Section 5209 as Carcinogens
- None

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The following chemicals are listed in the EU-Substances of Very High Concern (2008/67/ED) (SVHC):
- None

The following chemicals are listed in the EU-Restriction of the use of certain Hazardous Substances (2011/65/EU) (RoHS):
- None

The following chemicals are included in the Global Automotive Declarable Substance List (GADSL)
- None

The following substances are required for notification by the Japanese Enforcement Order of the Industrial Safety and Health Law (ISHL):
- 67-63-0 Isopropanol
- 141-78-6 Ethyl acetate
- 13463-67-7 Titanium (IV) dioxide
- 64-17-5 Ethanol

The following chemicals are listed on the Massachusetts Right-to-Know Hazardous Substances List.
- 67-63-0 Isopropanol
- 141-78-6 Ethyl acetate
- 13463-67-7 Titanium (IV) dioxide
- 64-17-5 Ethanol

The following chemicals are listed on the New Jersey Right-to-Know Hazardous Substances List.
- 67-63-0 Isopropanol
- 141-78-6 Ethyl acetate
- 13463-67-7 Titanium (IV) dioxide
- 64-17-5 Ethanol

The following chemicals are listed on the Pennsylvania Right-to-Know Hazardous Substances List.
- 67-63-0 Isopropanol
- 141-78-6 Ethyl acetate
- 13463-67-7 Titanium (IV) dioxide
- 64-17-5 Ethanol

The following chemicals are listed by the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
- 13463-67-7 Titanium (IV) dioxide 5 to 10 % Carcinogen
- 64-17-5 Ethanol 50 to 60 % Carcinogen

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) requires certain facilities manufacturing, processing, or otherwise using listed toxic chemicals to report their environmental releases of such chemicals annually. The following chemicals are listed:
- None

The following chemicals are listed in EPCRA (SARA) Section 313: Persistent, Bioaccumulative, and Toxic Chemicals (PBT)
- None

The following chemicals are listed under EPCRA (SARA) Section 313: Toxic Release Inventory (TRI)
- None

Under Section 12(b) of the Toxic Substances Control Act (TSCA), exporters may need to notify the U.S. Environmental Protection Agency if they export or intend to export a product containing a chemical substance that is present on this list. The following substances are contained within this material:
- None
The following chemicals are listed as a *Hazardous Air Pollutant* under listed under the U.S. CAA (Clean Air Act)

- None

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulation</th>
<th>All Components Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Canadian Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Canadian Non-Domestic Substances List (NSDL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>REACH Registered or Pre-Registered Substances and Intermediates</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Japanese Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Japan Inventory of Industrial Safety and Health Law Substances (ISHL)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Korean Existing Chemical Inventory (KECI)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory of Chemicals (NZIoC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>USA</td>
<td>Toxic Substances and Control Act (TSCA)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**EU Risk Phrases**

Not Available

**Safety Phrase**

Not Available

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### Section 16 - Other Information

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

**Hazardous Material Information System (HMIS)**

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>4</td>
<td>0</td>
<td>G</td>
</tr>
</tbody>
</table>

**National Fire Protection Association (NFPA)**

- Flammability
- Instability
- Health
- Special

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Date revised: 2018-09-18
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Revision No: apalmer
Reviewer ID: apalmer