Material Safety Data Sheet

Date of issue  2 January 2010
Version  7

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>PSX 700 ANSI #61 GRAY RESIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>PX700209</td>
</tr>
<tr>
<td>Supplier</td>
<td>PPG Industries, Inc.</td>
</tr>
<tr>
<td></td>
<td>One PPG Place</td>
</tr>
<tr>
<td></td>
<td>Pittsburgh, PA 15272</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>(412) 434-4515 (U.S.)</td>
</tr>
<tr>
<td></td>
<td>(514) 645-1320 (Canada)</td>
</tr>
<tr>
<td></td>
<td>01-800-00-21-400 (Mexico)</td>
</tr>
<tr>
<td>Technical Phone Number</td>
<td>(412) 492-5200 (ALLISON PARK, PA) 8:00 a.m. - 5:00 p.m. EST</td>
</tr>
</tbody>
</table>

2. Hazards identification

Emergency overview : WARNING!
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF INHALED OR SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Do not swallow. Do not get on skin or clothing. Avoid breathing vapor or mist. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : May be harmful if swallowed.

Skin : Irritating to skin. May cause an allergic skin reaction.

Eyes : Irritating to eyes.

Over-exposure signs/symptoms

Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness.

Medical conditions aggravated by over-exposure : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See toxicological information (section 11)

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary silicone</td>
<td>Proprietary</td>
<td>15 - 40</td>
</tr>
<tr>
<td>PROPRIETARY EPOXY</td>
<td>Not available.</td>
<td>15 - 40</td>
</tr>
<tr>
<td>Wollastonite (Ca(SiO3))</td>
<td>13983-17-0</td>
<td>10 - 30</td>
</tr>
<tr>
<td>titanium dioxide</td>
<td>13463-67-7</td>
<td>5 - 10</td>
</tr>
<tr>
<td>bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate</td>
<td>41556-26-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

United States - Canada - Mexico Page: 1/7
3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use solvents or thinners.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. Fire-fighting measures

Flammability of the product: In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Extinguishing media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not suitable: None known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products: Decomposition products may include the following materials:
- carbon oxides
- nitrogen oxides
- metal oxide/oxides

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill: 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...
6. Accidental release measures

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

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not swallow. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Vapors are heavier than air and may spread along floors. Empty containers retain product residue and can be hazardous. Do not reuse container. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Do not store above the following temperature: 120F / 49C.

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Ontario</th>
<th>Mexico</th>
<th>PPG</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>15 mg/m³ TD</td>
<td>10 mg/m³ TD</td>
<td>10 mg/m³ (as Ti)</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>20 mg/m³ (as Ti)</td>
<td>Not established</td>
</tr>
<tr>
<td>Carbon black</td>
<td>TWA</td>
<td>3.5 mg/m³</td>
<td>3.5 mg/m³</td>
<td>3.5 mg/m³</td>
<td>3.5 mg/m³</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>7 mg/m³</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Key to abbreviations

- A = Acceptable Maximum Peak
- ACGIH = American Conference of Governmental Industrial Hygienists.
- C = Ceiling Limit
- F = Fume
- IPEL = Internal Permissible Exposure Limit
- OSHA = Occupational Safety and Health Administration.
- R = Respirable
- S = Potential skin absorption
- SR = Respiratory sensitization
- SS = Skin sensitization
- TD = Total dust
- TLV = Threshold Limit Value
- TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
8. Exposure controls/personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

**Eyes**

Safety glasses with side shields.

**Hands**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Gloves**

butyl rubber

**Respiratory**

If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Skin**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

**Physical state**

Liquid.

**Flash point**

Closed cup: 97.22°C (207°F)

**Explosion limits**

Lower: 9.7%

**Color**

Not available.

**Odor**

Not available.

**pH**

Not available.

**Boiling/condensation point**

>37.78°C (>100°F)

**Melting/freezing point**

Not available.

**Specific gravity**

1.33

**Density (lbs / gal)**

11.1

**Vapor pressure**

0.64 kPa (4.8 mm Hg)

**Vapor density**

Not available.

**Volutility**

0% (v/v), 0.199997% (w/w)

**Odor threshold**

Not available.

**Evaporation rate**

33 (butyl acetate = 1)

**Octanol/water partition coefficient**

Not available.

**% Solid. (w/w)**

99.8
10. Stability and reactivity

**Stability**: The product may not be stable under certain conditions of storage or use.

**Conditions to avoid**: Avoid increased storage temperature. Pressure hazard

**Materials to avoid**: Reactive or incompatible with the following materials: acids

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Hazardous polymerization**: Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;10 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3.125 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Carbon black</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;15400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Not available.

**Chronic toxicity**

**Conclusion/Summary**: Not available.

**Target organs**: Contains material which causes damage to the following organs: upper respiratory tract, skin, eyes. Contains material which may cause damage to the following organs: lungs.

**Carcinogenicity**

**Carcinogenicity**: Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>A4</td>
<td>2B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Carbon black</td>
<td>A4</td>
<td>2B</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Mutagenicity**

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity**

**Teratogenicity**: No known significant effects or critical hazards.

**Reproductive toxicity**

**Developmental effects**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

12. Ecological information

**Environmental effects**: No known significant effects or critical hazards.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>titanium dioxide</td>
<td>Acute LC 50 5.5 ppm Fresh water</td>
<td>Daphnia - Water flea - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1 ppm Fresh water</td>
<td>Daphnia - Water flea - Daphnia magna</td>
<td>48 hours</td>
</tr>
</tbody>
</table>

**Other adverse effects**: No known significant effects or critical hazards.
13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN</td>
<td>None.</td>
<td>Not regulated.</td>
<td>None.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMDG</td>
<td>None.</td>
<td>Not regulated.</td>
<td>None.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DOT</td>
<td>None.</td>
<td>Not regulated.</td>
<td>None.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

PG*: Packing group

Reportable quantity RQ: CERCLA: Hazardous substances.: No products were found.

15. Regulatory information

United States inventory (TSCA 8b): All components are listed or exempted.

Australia inventory (AICS): At least one component is not listed.

Canada inventory (DSL): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Europe inventory (EINECS): This product contains a component which may restrict import to the notifier and/or to other parties holding a concurrent notification or agreement.

Japan inventory (ENCS): All components are listed or exempted.

Korea inventory (KECI): All components are listed or exempted.

New Zealand (NZIoC): Not determined.

Philippines inventory (PICCS): All components are listed or exempted.

United States U.S. Federal regulations: TSCA 12(b) annual export notification: No products were found.

TSCA 12(b) one-time export: No products were found.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: titanium dioxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: titanium dioxide: Immediate (acute) health hazard

CERCLA: Hazardous substances.: No products were found.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Canada

WHMIS (Canada): Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).
15. Regulatory information

Mexico
Classification
Flammability : 1  Health : 2  Reactivity : 1

16. Other information

Hazardous Material Information System (U.S.A.)
Health : 2  Flammability : 1  Physical hazards : 1
( * ) - Chronic effects
Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)
Health : 2  Flammability : 1  Instability : 1

Date of previous issue : 7/8/2009.
Organization that prepared the MSDS : EHS

Indicates information that has changed from previously issued version.

Disclaimer
The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.