EMERGENCY OVERVIEW:
CAUSES EYE IRRITATION. MAY CAUSE SLIGHT SKIN IRRITATION. VAPOR AND/OR SPRAY MIST MAY BE HARMFUL IF INHALED. HARMFUL IF SWALLOWED. This product is not expected to present any unusual hazards under fire or spill conditions. Read entire MSDS before use.

SECTION 2 - COMPOSITION INFORMATION

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

<table>
<thead>
<tr>
<th>Material/</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>0.5 - 1.5</td>
<td>x</td>
</tr>
<tr>
<td>SILICA</td>
<td>0.5 - 1.5</td>
<td>x</td>
</tr>
<tr>
<td>ALUMINUM SILICATE</td>
<td>0.5 - 1.5</td>
<td>x</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

ACUTE OVEREXPOSURE EFFECTS

EYE CONTACT:
Causes eye irritation. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

SKIN CONTACT:
May cause slight skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

SKIN ABSORPTION:
Skin absorption not expected to occur.

INHALATION:
Vapor and/or spray mist may be harmful if inhaled.

INGESTION:
Harmful if swallowed.

SIGNES & SYMPTOMS OF OVEREXPOSURE:
Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

CHRONIC OVEREXPOSURE EFFECTS

Avoid long-term and repeated contact.
This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. If this product contains free formaldehyde, formaldehyde will be listed as an ingredient in Section 2 and 11 of this MSDS; if formaldehyde is not specifically listed, this product contains ingredients capable of releasing formaldehyde under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer.
The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

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.

EYE CONTACT:
Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.

SKIN CONTACT:
Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room or physician as further treatment may be necessary.

INHALATION:
Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

INGESTION:
Gently wipe or rinse the inside of the mouth with water. Sips of water may be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASHPOINT: >200 Degrees F (> 93 Degrees C)
FLASHPOINT TEST METHOD:
Pensky-Martens Closed Cup
UEL: Not Available.
LEL: Not Available.

AUTOIGNITION TEMPERATURE:
Not Available.

EXTINGUISHING MEDIA:
Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical or universal aqueous film forming foam) designed to extinguish NFPA Class IIIB combustible liquid fires.

PROTECTION OF FIREFIGHTERS:
Water spray may be ineffective. Water spray may be used to cool closed containers that are exposed to extreme heat. If water is used, fog nozzles are preferable. Firefighters should wear self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Closed containers may explode or burst (due to the build-up of steam pressure) when exposed to extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.
SECTION 6 - ACCIDENTAL RELEASE MEASURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbent should be placed in this container.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
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:
Protect from freezing.

SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION

ENGINEERING CONTROLS:
Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 8 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

PERSONAL PROTECTIVE EQUIPMENT

EYES:
Wear safety glasses with side shields.

SKIN/GLOVES:
Wear protective clothing. Gloves should be constructed of: neoprene rubber or nitrile rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. Clean contaminated clothing and shoes.

RESPIRATOR:
Where ventilation is inadequate, use a NIOSH-approved air purifying respirator with the appropriate chemical cartridges or positive-pressure, air-supplied respirator. Read the respirator manufacturer’s instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS
If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

FORMULA VALUES, NOT SALES SPECIFICATIONS

SPECIFIC GRAVITY:
1.171

PHYSICAL STATE:
Liquid

Percent Solids:
38.50

Percent Volatile by Volume:
70.300

pH:
Not available.

ODOR THRESHOLD:
Not available.

Vapour Pressure:
17.4 mmHg

ODOR/APPEARANCE:
Viscous liquid with an odor characteristic of the chemical family and any solvents listed in Section 2.

VAPOR DENSITY:
HEAVIER THAN AIR

Evaporation Rate:
34

BOILING POINT OR RANGE:
212 - 475 Degrees F

Freezing Point or Range:
Not Applicable.

Melting Point or Range(°C):
Not Applicable.

Partition coefficient (n-octanol/water):
Not Applicable.

WEIGHT PER GALLON:
9.76 (U.S.) / 11.7 (IMPERIAL)

SECTION 10 - STABILITY AND REACTIVITY

STABILITY:
This product is normally stable and will not undergo hazardous reactions.

CONDITIONS TO AVOID:
None Known.

INCOMPATIBLE MATERIALS:
Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.

HAZARDOUS POLYMERIZATION:
None Known.

HAZARDOUS DECOMPOSITION PRODUCTS:
- Carbon monoxide - Carbon dioxide - Oxides of aluminum - Lower molecular weight polymer fractions

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Material/ CAS Number Percent ORAL LD50 (g/kg) DERMAL LD50 (g/kg) INHALATION LC50 (mg/l)

TITANIUM DIOXIDE 13463-67-7 10 - 30 10.00 g/kg Not Available Not Available

CHRONIC TOXICITY

Ingredient Target Organ/Chronic Effects:
**Material/CAS Number** | **Percent** | **Ingredient Specific Animal Data:**
--- | --- | ---
TITANIUM DIOXIDE 13463-67-7 | 10 - 30 | This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure.

**SUPPLEMENTAL HEALTH INFORMATION:**

**Mutagenicity Toxicity:**
This has not been tested for this product.

**Reproductive Toxicity:**
This has not been tested for this product.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

**SECTION 16 - OTHER INFORMATION**

Hazard Rating Systems
NFPA Rating: 1 10
HMIS Rating: 1 10

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, *=Chronic Effects.
061110, 000, 0822

*** END OF MSDS ***