

MATERIAL SAFETY DATA SHEET



**SECTION 1 - PRODUCT AND COMPANY INFORMATION**

PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272

**EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)**  
(24 hours/day):

(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)  
0532-83889090 (China)

**TECHNICAL INFORMATION:** 1-800-245-2590 (CLEVELAND, OH) 8:00 a.m. - 5:00 p.m. EST

**PRODUCT SAFETY/MSDS INFORMATION:** (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

**Product ID:** SAL63860 (0806-T0)  
**PRODUCT NAME:** GORBEL YELLOW ALKYD TC  
**SYNONYMS:** None  
**ISSUE DATE:** 05/14/2007  
**EDITION NO.:** 1  
**CHEMICAL FAMILY:** Alkyd

**EMERGENCY OVERVIEW:**

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone. CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT. HARMFUL OR FATAL IF SWALLOWED.

**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.

Material/ CAS Number	Percent	Hazardous	
AROMATIC NAPHTHA 64742-95-6	10 - 30	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	X	
XYLENES 1330-20-7	5 - 10	X	
TITANIUM DIOXIDE 13463-67-7	3 - 7	X	
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	X	
TALC 14807-96-6	3 - 7	X	
COATED CALCIUM CARBONATE 471-34-1	3 - 7	X	
2-BUTOXY ETHANOL 111-76-2	1 - 5	X	
SILICA GEL 63231-67-4	1 - 5	X	
ETHYL BENZENE 100-41-4	1 - 5	X	
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	X	
(As Glycol ethers) 111-76-2	*	X	See Sections 8 and 15 for information.
(As Nuisance Particulates) 471-34-1	*	X	See Sections 8 and 15 for information.

**SECTION 3 - HAZARDS IDENTIFICATION**

**ACUTE OVEREXPOSURE EFFECTS**

**EYE CONTACT:**

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

**SKIN CONTACT:**

May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

**SKIN ABSORPTION:**

May be harmful if absorbed through the skin.

**INHALATION:**

Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat. Vapor generated at elevated temperatures irritates eyes, nose and throat.

**INGESTION:**

Harmful or fatal if swallowed.

**SIGNS & SYMPTOMS OF OVEREXPOSURE:**

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. 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.

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**PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272**

**Product ID:** SAL63860 (0806-T0)  
**PRODUCT NAME:** GORBEL YELLOW ALKYD TC

Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Prolonged exposure to an ingredient(s) in this product may cause kidney

**RESPIRATOR:**

Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. 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.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
XYLENES 1330-20-7	5 - 10	100 ppm	150 PPM	100 ppm	150 ppm
TITANIUM DIOXIDE 13463-67-7	3 - 7	10 mg/m <sup>3</sup>	Not established	10 mg/m <sup>3</sup>	Not established
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 PPM	75 PPM	50 ppm	75 ppm
TALC 14807-96-6	3 - 7	R- 2 MG/m <sup>3</sup>	Not established	R- 2 mg/m <sup>3</sup>	Not established
2-BUTOXY ETHANOL 111-76-2	1 - 5	20 PPM	Not established	S- 25 ppm	Not established
ETHYL BENZENE 100-41-4	1 - 5	100 ppm	125 ppm	100 ppm	125 ppm
(As Nuisance Particulates) 471-34-1	*	R- 3 MG/m <sup>3</sup>	Not established	R- 5 mg/m <sup>3</sup>	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
XYLENES 1330-20-7	5 - 10	100 ppm	150 ppm	Not established	Not established
TITANIUM DIOXIDE 13463-67-7	3 - 7	10 MG/m <sup>3</sup>	Not established	Not established	Not established
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 ppm	75 PPM	Not established	Not established
TALC 14807-96-6	3 - 7	R- 2 MG/m <sup>3</sup>	Not established	Not established	Not established
COATED CALCIUM CARBONATE 471-34-1	3 - 7	10 MG/m <sup>3</sup>	Not established	Not established	Not established
2-BUTOXY ETHANOL 111-76-2	1 - 5	S- 20 PPM	Not established	Not established	Not established
ETHYL BENZENE 100-41-4	1 - 5	100 PPM	125 PPM	Not established	Not established
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not established	Not established	3 ppm	10 ppm
(As Nuisance Particulates) 471-34-1	*	R- 3 MG/m <sup>3</sup>	Not established	Not established	Not established

**Key:** ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-Potential Skin Absorption; R-Respirable Dust]  
**Additional Information** Not applicable.

**SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES  
(FORMULA VALUES, NOT SALES SPECIFICATIONS)**

**SPECIFIC GRAVITY:** 1.202  
**PHYSICAL STATE:** Liquid  
**Percent Solids:** 56.69  
**Percent Volatile by Volume:** 60.110  
**pH:** Not available.  
**ODOR THRESHOLD:** Not available.  
**Vapour Pressure:** 5.4 mmHg  
**ODOR/APPEARANCE:** Viscous liquid with an odor characteristic of the solvents listed in Section 2.  
**VAPOR DENSITY:** HEAVIER THAN AIR  
**Evaporation Rate:** 50  
**BOILING POINT OR RANGE:** 237 - 468Degrees F  
**Freezing Point or Range:** Not Applicable.  
**Melting Point or Range(°C):** Not Applicable.  
**Partition coefficient (n-octanol/water):** Not Applicable.  
**WEIGHT PER GALLON:** 10.02 (U.S.) / 12.0 (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 alkalis, strong mineral acids, or strong oxidizing agents.  
**HAZARDOUS POLYMERIZATION:** None Known.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** - Carbon monoxide - Carbon dioxide - 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)
AROMATIC NAPHTHA 64742-95-6	10 - 30	8.40 g/kg	3.48 g/kg	5.20 mg/l 4 hr
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	Not Available	Not Available	18.00 mg/l 4 hr
XYLENES 1330-20-7	5 - 10	4.30 g/kg	1.70 g/kg	21.88 mg/l 4 hr
TITANIUM DIOXIDE 13463-67-7	3 - 7	10.00 g/kg	Not Available	Not Available
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	2.08 g/kg	Not Available	32.77 mg/l 4 hr
COATED CALCIUM CARBONATE 471-34-1	3 - 7	6.45 g/kg	Not Available	Not Available
2-BUTOXY ETHANOL 111-76-2	1 - 5	.47 g/kg	.22 g/kg	2.18 mg/l 4 hr
SILICA GEL 63231-67-4	1 - 5	31.60 g/kg	Not Available	Not Available
ETHYL BENZENE 100-41-4	1 - 5	3.50 g/kg	17.80 g/kg	Not Available
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	1.69 g/kg	Not Available	Not Available

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	3 - 7	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.
2-BUTOXY ETHANOL 111-76-2	1 - 5	This product contains an ethylene series glycol ether and/or acetate which has been shown to cause adverse effects on the kidneys, liver, blood and/or blood-forming tissue. In a two-year NTP inhalation study, there was no significant increase in the incidence of any type of tumor in rats exposed to 2-butoxy ethanol at concentrations up to 125 ppm except a questionable trend in the incidence of adrenal gland tumors in female rats. When mice were exposed to concentrations of 62.5, 125, and 250 ppm, there was some evidence of carcinogenicity found in the liver of male mice and the forestomach of female mice at 250 ppm. This product contains an ingredient which has been shown to cause adverse reproductive effects in animals at doses which are also toxic to the mother.
ETHYL BENZENE 100-41-4	1 - 5	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	This product contains methyl ethyl ketoxime (MEKO). Studies in animals indicate that overexposure can cause adverse effects in spleen and kidney, anemia, liver cancer and cataracts.

#### CHRONIC TOXICITY

##### Ingredient Target Organ/Chronic Effects:

- Cataract - Spleen - Bone marrow and blood tissues - Blood - Carcinogen - Embryotoxin - Ear - Kidney - Liver - Brain - Central nervous system - Lung

##### Mutagenicity Toxicity:

This has not been tested for this product.

##### Reproductive Toxicity:

This has not been tested for this product.

#### SUPPLEMENTAL HEALTH INFORMATION:

#### SECTION 12 - ECOLOGICAL INFORMATION

##### POTENTIAL ENVIRONMENTAL EFFECTS

Ecotoxicity: No Information Available.

##### ENVIRONMENTAL FATE

Mobility: No information available.  
Biodegradation: No information available.  
Bioaccumulation: No Information Available.

##### PHYSICAL/CHEMICAL

Hydrolysis: No information available.  
Photolysis: No information available.

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

#### SECTION 14 - TRANSPORTATION INFORMATION

Proper Shipping Name: NOT AVAILABLE  
NOS Technical Name: NOT AVAILABLE  
Hazard Class: N.A.  
Subsidiary Class(es): N.A.  
UN Number: N.A.  
Packing Group: N.A.

USA - RQ Hazardous Substances: NOT AVAILABLE  
USA-RQ Hazardous Substance NOT AVAILABLE  
Threshold Ship Weight:  
Marine Pollutant Name: NOT AVAILABLE

Material/ CAS Number	Percent	IARC Group 1(Kno wn Human Carc.)	IARC Group 2A (Proba ble Carc.)	IARC 2B ( Suspec ted Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
TITANIUM DIOXIDE 13463-67-7	3 - 7	N	N	Y	N	N	N
ETHYL BENZENE 100-41-4	1 - 5	N	N	Y	N	N	Y

**SECTION 15 - REGULATORY INFORMATION**

**INVENTORY STATUS**

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

**FEDERAL REGULATIONS**

**US Regulations**

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
AROMATIC NAPHTHA 64742-95-6	10 - 30	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	Not Listed	Not Listed	Listed
XYLENES 1330-20-7	5 - 10	100 lbs	Not Listed	Listed
TITANIUM DIOXIDE 13463-67-7	3 - 7	Not Listed	Not Listed	Not Listed
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	5000 lbs	Not Listed	Listed
TALC 14807-96-6	3 - 7	Not Listed	Not Listed	Not Listed
COATED CALCIUM CARBONATE 471-34-1	3 - 7	Not Listed	Not Listed	Not Listed
2-BUTOXY ETHANOL 111-76-2	1 - 5	Not Listed	Not Listed	Not Listed
SILICA GEL 63231-67-4	1 - 5	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	1 - 5	1000 lbs	Not Listed	Listed
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not Listed	Not Listed	Not Listed
(As Glycol ethers) 111-76-2	*	Not Listed	Not Listed	Listed

**SARA 311/312**

Health (acute): Yes  
Health (chronic): Yes  
Fire (flammable): Yes  
Pressure: No  
Reactivity: No

**WHMIS HAZARD CLASS:** - Class B, Division 6 - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1, Subdivision B

**STATE/PROVINCIAL REGULATIONS**

**CALIFORNIA PROP. 65:** WARNING: This product contains a chemical known to the State of California to cause cancer.

**Additional Information**

**Key:** IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program \*Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

**SECTION 16 - OTHER INFORMATION**

**Hazard Rating Systems**

**NFPA Rating:** 2 30

**HMIS Rating:** 2\*30

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

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

**PREPARED BY:** Product Safety Department

**REASON FOR REVISION:** Date. Edition.

Updated MSDS format.

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), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.

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

SAL63860 000000 (00461889.001)(05/11/07)  
070511, 000, 0806

\*\*\* END OF MSDS \*\*\*

MATERIAL SAFETY DATA SHEET



**SECTION 1 - PRODUCT AND COMPANY INFORMATION**

PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272

**EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)**  
(24 hours/day):

(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)  
0532-83889090 (China)

**TECHNICAL INFORMATION:** (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

**PRODUCT SAFETY/MSDS INFORMATION:** (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

**Product ID:** SAL63859 (0811-T0)  
**PRODUCT NAME:** GORBEL BLUE ALKYD TC  
**SYNONYMS:** None  
**ISSUE DATE:** 05/14/2007  
**EDITION NO.:** 1  
**CHEMICAL FAMILY:** Alkyd

**EMERGENCY OVERVIEW:**

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone. CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. VAPOR IRRITATES EYES, NOSE, AND THROAT. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT. HARMFUL OR FATAL IF SWALLOWED.

**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.

Material/ CAS Number	Percent	Hazardous	
AROMATIC NAPHTHA 64742-95-6	10 - 30	X	
TITANIUM DIOXIDE 13463-67-7	5 - 10	X	
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	X	
TALC 14807-96-6	5 - 10	X	
COATED CALCIUM CARBONATE 471-34-1	5 - 10	X	
XYLENES 1330-20-7	5 - 10	X	
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	X	
2-BUTOXY ETHANOL 111-76-2	1 - 5	X	
PHTHALOCYANINE PIGMENT BLUE 15 147-14-8	1 - 5	X	
SILICA GEL 63231-67-4	1 - 5	X	
ETHYL BENZENE 100-41-4	1 - 5	X	
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	X	
CARBON BLACK 1333-86-4 (As Glycol ethers) 111-76-2	0.1-1.0	X	See Sections 8 and 15 for information.
(As Copper Cmpnds) 147-14-8	*	X	See Sections 8 and 15 for information.
(As Nuisance Particulates) 471-34-1	*	X	See Sections 8 and 15 for information.

**SECTION 3 - HAZARDS IDENTIFICATION**

**ACUTE OVEREXPOSURE EFFECTS**

**EYE CONTACT:**

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

**SKIN CONTACT:**

May cause moderate skin irritation. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

**SKIN ABSORPTION:**

May be harmful if absorbed through the skin.

**INHALATION:**

Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat. Vapor generated at elevated temperatures irritates eyes, nose and throat.

**INGESTION:**

Harmful or fatal if swallowed.

**SIGNS & SYMPTOMS OF OVEREXPOSURE:**

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. 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.

Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Prolonged exposure to an ingredient(s) in this product may cause kidney and/or liver damage. This product contains talc. In a lifetime inhalation study female rats exposed to an elevated respirable concentration (9 times the Permissible Exposure Limit) of cosmetic grade talc developed lung cancer. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. 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 if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

#### SECTION 5 - FIRE FIGHTING MEASURES

##### FLAMMABLE PROPERTIES

**FLASHPOINT:** 60 Degrees F ( 16 Degrees C)

##### FLASHPOINT TEST METHOD:

Pensky-Martens Closed Cup

**UEL:** Not Available.

**LEL:** 1.1

##### 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 IB flammable liquid fires. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

##### PROTECTION OF FIREFIGHTERS:

Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

#### UNUSUAL FIRE AND EXPLOSION HAZARDS:

When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating material are subject to spontaneous combustion. Wetting the contaminated materials and not packing them tightly together in refuse containers will minimize the potential for this to occur. Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with 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 absorbant should be placed in this container.

#### SECTION 7 - HANDLING AND STORAGE

##### PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

Vapors may collect in low areas. 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. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

##### STORAGE:

Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

#### 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 chemical-type splash goggles when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

###### SKIN/GLOVES:

Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: 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:**

Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. 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.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TITANIUM DIOXIDE 13463-67-7	5 - 10	10 mg/m <sup>3</sup>	Not established	10 mg/m <sup>3</sup>	Not established
TALC 14807-96-6	5 - 10	R- 2 MG/m <sup>3</sup>	Not established	R- 2 mg/m <sup>3</sup>	Not established
XYLENES 1330-20-7	5 - 10	100 ppm	150 PPM	100 ppm	150 ppm
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 PPM	75 PPM	50 ppm	75 ppm
2-BUTOXY ETHANOL 111-76-2	1 - 5	20 PPM	Not established	S- 25 ppm	Not established
PHTHALOCYANINE PIGMENT BLUE 15 147-14-8	1 - 5	1 mg/m <sup>3</sup>	Not established	1 mg/m <sup>3</sup>	Not established
ETHYL BENZENE 100-41-4	1 - 5	100 ppm	125 ppm	100 ppm	125 ppm
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m <sup>3</sup>	Not established	3.5 mg/m <sup>3</sup>	Not established
(As Nuisance Particulates) 471-34-1	*	R- 3 MG/m <sup>3</sup>	Not established	R- 5 mg/m <sup>3</sup>	Not established

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
TITANIUM DIOXIDE 13463-67-7	5 - 10	10 MG/m <sup>3</sup>	Not established	Not established	Not established
TALC 14807-96-6	5 - 10	R- 2 MG/m <sup>3</sup>	Not established	Not established	Not established
COATED CALCIUM CARBONATE 471-34-1	5 - 10	10 MG/m <sup>3</sup>	Not established	Not established	Not established
XYLENES 1330-20-7	5 - 10	100 ppm	150 ppm	Not established	Not established
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	50 ppm	75 PPM	Not established	Not established
2-BUTOXY ETHANOL 111-76-2	1 - 5	S- 20 PPM	Not established	Not established	Not established
PHTHALOCYANINE PIGMENT BLUE 15 147-14-8	1 - 5	1 mg/m <sup>3</sup>	Not established	Not established	Not established
ETHYL BENZENE 100-41-4	1 - 5	100 PPM	125 PPM	Not established	Not established
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not established	Not established	3 ppm	10 ppm
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m <sup>3</sup>	Not established	Not established	Not established
(As Nuisance Particulates) 471-34-1	*	R- 3 MG/m <sup>3</sup>	Not established	Not established	Not established

**Key:** ACGIH=American Conference of Governmental Industrial Hygienists; OSHA=Occupational Safety and Health Administration; TLV=Threshold Limit Value; TWA=Time Weighted Average; PEL=Permissible Exposure Limit (1989 Vacated values); IPEL=Internal Permissible Exposure Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term Exposure Limit; Skin= Skin Absorption Designation. ts0 TDg.(ts).1453 TD0.0009 Tc(esAtern07 Twre Limit; Ceiling=TL)T5



**INCOMPATIBLE MATERIALS:**

Avoid contact with strong alkalis, strong mineral acids, or strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:**

None Known.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

- Carbon monoxide - Carbon dioxide - Oxides of nitrogen - Chlorinated products - Oxides of copper - Hydrogen cyanide - 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)
AROMATIC NAPHTHA 64742-95-6	10 - 30	8.40 g/kg	3.48 g/kg	5.20 mg/l 4 hr
TITANIUM DIOXIDE 13463-67-7	5 - 10	10.00 g/kg	Not Available	Not Available
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	Not Available	Not Available	18.00 mg/l 4 hr
COATED CALCIUM CARBONATE 471-34-1	5 - 10	6.45 g/kg	Not Available	Not Available
XYLENES 1330-20-7	5 - 10	4.30 g/kg	1.70 g/kg	21.88 mg/l 4 hr
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	2.08 g/kg	Not Available	32.77 mg/l 4 hr
2-BUTOXY ETHANOL 111-76-2	1 - 5	.47 g/kg	.22 g/kg	2.18 mg/l 4 hr
PHTHALOCYANINE PIGMENT BLUE 15 147-14-8	1 - 5	5.10 g/kg	Not Available	Not Available
SILICA GEL 63231-67-4	1 - 5	31.60 g/kg	Not Available	Not Available
ETHYL BENZENE 100-41-4	1 - 5	3.50 g/kg	17.80 g/kg	Not Available
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	1.69 g/kg	Not Available	Not Available
CARBON BLACK 1333-86-4	0.1-1.0	15.40 g/kg	3.00 g/kg	Not Available

**CHRONIC TOXICITY**

**Ingredient Target Organ/Chronic Effects:**

- Cataract - Spleen - Bone marrow and blood tissues - Blood - Carcinogen - Embryotoxin - Ear - Kidney - Liver - Brain - Central nervous system - Lung

**Mutagenicity Toxicity:**

This has not been tested for this product.

**Reproductive Toxicity:**

This has not been tested for this product.

**SUPPLEMENTAL HEALTH INFORMATION:**

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TITANIUM DIOXIDE 13463-67-7	5 - 10	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.
2-BUTOXY ETHANOL 111-76-2	1 - 5	This product contains an ethylene series glycol ether and/or acetate which has been shown to cause adverse effects on the kidneys, liver, blood and/or blood-forming tissue. In a two-year NTP inhalation study, there was no significant increase in the incidence of any type of tumor in rats exposed to 2-butoxy ethanol at concentrations up to 125 ppm except a questionable trend in the incidence of adrenal gland tumors in female rats. When mice were exposed to concentrations of 62.5, 125, and 250 ppm, there was some evidence of carcinogenicity found in the liver of male mice and the forestomach of female mice at 250 ppm. This product contains an ingredient which has been shown to cause adverse reproductive effects in animals at doses which are also toxic to the mother.
ETHYL BENZENE 100-41-4	1 - 5	Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Dose levels of 75, 250 and 750 ppm were used, with evidence of carcinogenicity found in the kidneys of rats and the lung and liver of mice at 750 ppm. The No Observed Effect Level (NOEL) was 75 ppm. The relevance of these findings to humans is uncertain, but appropriate safeguards should be employed to reduce or eliminate inhalation exposure to ethylbenzene.
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	This product contains methyl ethyl ketoxime (MEKO). Studies in animals indicate that overexposure can cause adverse effects in spleen and kidney, anemia, liver cancer and cataracts.
CARBON BLACK 1333-86-4	0.1-1.0	This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data.

**SECTION 12 - ECOLOGICAL INFORMATION**

**POTENTIAL ENVIRONMENTAL EFFECTS**

**Ecotoxicity:** No Information Available.

**ENVIRONMENTAL FATE**

**Mobility:** No information available.

**Biodegradation:** No information available.

**Bioaccumulation:** No Information Available.

**PHYSICAL/CHEMICAL**

**Hydrolysis:** No information available.

**Photolysis:** No information available.

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

**SECTION 14 - TRANSPORTATION INFORMATION**

**Proper Shipping Name:** NOT AVAILABLE

**NOS Technical Name:** NOT AVAILABLE

**Hazard Class:** N.A.

**Subsidiary Class(es):** N.A.

UN Number: N.A.  
Packing Group: N.A.

Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1,  
Subdivision B

USA - RQ Hazardous Substances: NOT AVAILABLE  
USA-RQ Hazardous Substance Threshold Ship Weight: NOT AVAILABLE

Marine Pollutant Name: NOT AVAILABLE  
USA and Canada Shipments Only- Combustible Liquid Exception: Non-bulk (<=119 Gallons/450 L) ground shipments can be reclassified to "not regulated" for transportation. Bulk shipments - USA Only (> 119 Gallons/450 L) can be reclassified to a Combustible Liquid.

**STATE/PROVINCIAL REGULATIONS**

**CALIFORNIA PROP. 65:** WARNING: This product contains a chemical known to the State of California to cause cancer.

**Additional Information**

Material/ CAS Number	Percent	IARC Group 1(Kno wn Human Carc.)	IARC Group 2A (Proba ble Carc.)	IARC 2B (Suspec ted Carc.)	ACGIH Carc.	NTP Known Carc.	OSHA Carc.
TITANIUM DIOXIDE 13463-67-7	5 - 10	N	N	Y	N	N	N
ETHYL BENZENE 100-41-4	1 - 5	N	N	Y	N	N	Y
CARBON BLACK 1333-86-4	0.1-1.0	N	N	Y	N	N	Y

**SECTION 15 - REGULATORY INFORMATION**

**INVENTORY STATUS**

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA Inventory reporting requirements.

**FEDERAL REGULATIONS**

**US Regulations**

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
AROMATIC NAPHTHA 64742-95-6	10 - 30	Not Listed	Not Listed	Not Listed
TITANIUM DIOXIDE 13463-67-7	5 - 10	Not Listed	Not Listed	Not Listed
1,2,4-TRIMETHYL BENZENE 95-63-6	5 - 10	Not Listed	Not Listed	Listed
TALC 14807-96-6	5 - 10	Not Listed	Not Listed	Not Listed
COATED CALCIUM CARBONATE 471-34-1	5 - 10	Not Listed	Not Listed	Not Listed
XYLENES 1330-20-7	5 - 10	100 lbs	Not Listed	Listed
METHYL ISOBUTYL KETONE 108-10-1	3 - 7	5000 lbs	Not Listed	Listed
2-BUTOXY ETHANOL 111-76-2	1 - 5	Not Listed	Not Listed	Not Listed
PHTHALOCYANINE PIGMENT BLUE 15 147-14-8	1 - 5	Not Listed	Not Listed	Not Listed
SILICA GEL 63231-67-4	1 - 5	Not Listed	Not Listed	Not Listed
ETHYL BENZENE 100-41-4	1 - 5	1000 lbs	Not Listed	Listed
METHYL ETHYL KETOXIME 96-29-7	0.1-1.0	Not Listed	Not Listed	Not Listed
CARBON BLACK 1333-86-4	0.1-1.0	Not Listed	Not Listed	Not Listed
(As Glycol ethers) 111-76-2	*	Not Listed	Not Listed	Listed
(As Copper Cmpnds) 147-14-8	*	Not Listed	Not Listed	Listed

**Key:** IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program \*Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

**SECTION 16 - OTHER INFORMATION**

**Hazard Rating Systems**

NFPA Rating: 2 30  
HMIS Rating: 2\*30

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

HMIS=Hazardous Materials Identification System; NFPA=National Fire Protection Association;

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

**PREPARED BY:** Product Safety Department

**REASON FOR REVISION:** Date. Edition.

Updated MSDS format.

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), the supplier notification requirements of SARA Title III, Section 313 and other applicable right-to-know regulations.

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

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070511, 000, 0811

\*\*\* END OF MSDS \*\*\*

**SARA 311/312**

Health (acute): Yes  
Health (chronic): Yes  
Fire (flammable): Yes  
Pressure: No  
Reactivity: No

**WHMIS HAZARD CLASS:** - Class B, Division 6 - Class D, Division 2,