PPG High Performance Coatings

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** 1-800-441-9695 (8:00 am to 5:00 pm EST) **INFORMATION:** PRODUCT SAFETY/MSDS INFORMATION: (412) 492-5555 7:00 a.m. - 4:30 p.m. EST Product ID: 95-5000 (0814) PRODUCT NAME: SILICONE ALKYD GLOSS ENAMEL NEUTRAL BASE SYNONYMS: None **ISSUE DATE:** 04/05/2007 **EDITION NO.:** 3 CHEMICAL Alkyd FAMILY: **EMERGENCY OVERVIEW:**

Combustible. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke.CAUSES SEVERE EYE IRRITATION. MAY CAUSE MODERATE SKIN IRRITATION. MAY BE 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 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/	Percent	Hazardous	-
CAS Number			
AROMATIC NAPHTHA	5 - 10	Х	
64742-95-6			
1,2,4-TRIMETHYL BENZENE	5 - 10	Х	
95-63-6			
TRIMETHYLBENZENE	5 - 10	Х	
25551-13-7			
XYLENES	1 - 5	Х	
1330-20-7			
2-ETHYLHEXANOL	1 - 5	Х	
104-76-7			
METHYL ETHYL KETOXIME	0.1-1.0	Х	
96-29-7			
ETHYL BENZENE	0.1-1.0	Х	
100-41-4			
2-ETHYLHEXANOIC ACID	0.1-1.0	Х	
149-57-5			
DIETHYLENE GLYCOL	0.1-1.0	Х	
MONOMETHYL ETHER			
111-77-3			
(As Glycol ethers)	*	Х	See Sections 8
111-77-3			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 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 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. 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 necessarv.

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.

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SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: 106 Degrees F (41 Degrees C) FLASHPOINT TEST METHOD: Pensky-Martens Closed Cup UEL: Not Available. LEL: .9 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 II combustible 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 II combustible 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 and full face shield 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: butyl 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.

<u>Material/</u> CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TRIMETHYLBENZE NE 25551-13-7	5 - 10	25 PPM	Not established	25 ppm	Not established
XYLENES 1330-20-7	1 - 5	100 ppm	150 PPM	100 ppm	150 ppm
ETHYL BENZENE 100-41-4	0.1-1.0	100 ppm	125 ppm	100 ppm	125 ppm
2- ETHYLHEXANOIC ACID 149-57-5	0.1-1.0	5 MG/m ³	Not established	Not established	Not established

Material/	Percent	Ontario	Ontario	PPG IPEL	PPG STEL
CAS Number	1 or cont	TWA	STEL	<u></u>	
TRIMETHYLBENZE	5 - 10	25 ppm	Not	Not	Not
NE			established	established	established
25551-13-7					
XYLENES	1 - 5	100 ppm	150 ppm	Not	Not
1330-20-7				established	established
METHYL ETHYL	0.1-1.0	Not	Not	3 ppm	10 ppm
KETOXIME		established	established		
96-29-7					
ETHYL BENZENE	0.1-1.0	100 PPM	125 PPM	Not	Not
100-41-4				established	established
2-	0.1-1.0	5 MG/m ³	Not	Not	Not
ETHYLHEXANOIC			established	established	established
ACID					
149-57-5					
DIETHYLENE	0.1-1.0	Not	Not	30 PPM	Not
GLYCOL		established	established		established
MONOMETHYL					
ETHER					
111-77-3					

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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

	I SALES SPECIFICATIONS)
SPECIFIC GRAVITY:	1.021
PHYSICAL STATE:	Liquid
Percent Solids:	68.33
Percent Volatile by Volume:	37.280
pH:	Not available.
ODOR THRESHOLD:	Not available.
Vapour Pressure:	3.0 mmHg
ODOR/APPEARANCE:	Viscous liquid with an odor
	characteristic of the solvents listed in
	Section 2.
VAPOR DENSITY:	HEAVIER THAN AIR
Evaporation Rate:	26
BOILING POINT OR RANGE:	280 - 381Degrees F
Freezing Point or Range:	Not Applicable.
Melting Point or Range(°C):	Not Applicable.
Partition coefficient (n-	Not Applicable.
octanol/water):	••
WEIGHT PER GALLON:	8.51 (U.S.) / 10.2 (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

SECTION 11 - TOXICOLOGICAL INFORMATION ACUTE TOXICITY

		1	r	
Material/	Percent	ORAL	DERMAL	INHALATION
CAS Number		LD50 (g/kg)	LD50 (g/kg)	LC50 (mg/l)
AROMATIC	5 - 10	8.40 g/kg	3.48 g/kg	5.20 g/L. 4 hr.
NAPHTHA				
64742-95-6				
1,2,4-TRIMETHYL	5 - 10	Not Available	Not Available	18.00 g/L. 4 hr.
BENZENE				
95-63-6				
TRIMETHYLBENZE	5 - 10	8.97 g/kg	Not Available	Not Available
NE				
25551-13-7				
XYLENES	1 - 5	4.30 g/kg	1.70 g/kg	21.88 g/L. 4 hr.
1330-20-7				-
2-ETHYLHEXANOL	1 - 5	2.05 g/kg	1.97 g/kg	Not Available
104-76-7				
METHYL ETHYL	0.1-1.0	1.69 g/kg	Not Available	Not Available
KETOXIME				
96-29-7				
ETHYL BENZENE	0.1-1.0	3.50 g/kg	17.80 g/kg	Not Available
100-41-4				
2-	0.1-1.0	3.00 g/kg	1.26 g/kg	Not Available
ETHYLHEXANOIC				
ACID				
149-57-5				
DIETHYLENE	0.1-1.0	9.20 g/kg	.65 g/kg	Not Available
GLYCOL		0.0	5 5	
MONOMETHYL				
ETHER				
111-77-3				

CHRONIC TOXICITY

Ingredient Target Organ/Chronic Effects:

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

Mutagenicity Toxicity:

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

SUPPLEMENTAL HEALTH INFORMATION:

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PRODUCT NAME: SILICONE ALKYD GLOSS ENAMEL NEUTRAL BASÉ

USA-RQ Hazardous Substance Xylenes>5463.93 Pounds **Threshold Ship Weight:** Marine Pollutant Name:

None

USA and Canada Shipments Only- Combustible Liquid Exception: Nonbulk (<=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.

USA Shipments Only - RQ Threshold Ship Weight: This is the total weight of this product that must be shipped to exceed the RQ quantity.

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/ Percent CAS Number CERCLA HS SARA EHS-SARA 313 RQ (LBS) TPQ (LBS) AROMATIC 5 - 10 Not Listed Not Listed Not Listed NAPHTHA 64742-95-6 1.2.4-TRIMETHYL 5 - 10 Not Listed Not Listed Listed BENZENE 95-63-6 TRIMETHYLBENZE 5 - 10 Not Listed Not Listed Not Listed NE 25551-13-7 **XYLENES** 1 - 5 100 lbs Not Listed Listed 1330-20-7 2-ETHYLHEXANOL Not Listed Not Listed Not Listed 1 - 5 104-76-7 METHYL ETHYL 0.1-1.0 Not Listed Not Listed Not Listed KETOXIME 96-29-7 ETHYL BENZENE 0.1-1.0 1000 lbs Not Listed Listed 100-41-4 0.1-1.0 Not Listed Not Listed Not Listed 2-ETHYLHEXANOIC ACID 149-57-5 DIETHYLENE 0.1-1.0 Not Listed Not Listed Not Listed GLYCOL MONOMETHYL ETHER 111-77-3 Not Listed Not Listed (As Glycol ethers) Listed 111-77-3

SARA 311/312

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

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

Material/	Percent				
CAS		Ingredient Specific Animal Data:			
Number					
2- ETHYLHEX ANOL 104-76-7	1 - 5	This product contains 2-ethylhexanol (2-EH). Oral administration of 2-EH to pregnant rats at maternally toxic levels resulted in teratogenicity, but it was not a selective developmental toxicant.			
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.			
ETHYL BENZENE 100-41-4	0.1-1.0	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.			
2- ETHYLHEX ANOIC ACID 149-57-5	0.1-1.0	This product contains 2-ethyl hexanoic acid which has caused adverse liver effects in laboratory animals during subchronic feeding studies. Possible reproductive hazard. An ingredient(s) in this product has adversely affected reproductive tissues and fetal development in test animals.			
DIETHYLE NE GLYCOL MONOMET HYL ETHER 111-77-3	0.1-1.0	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.			

SECTION 12 - ECOLOGICAL INFORMATION POTENTIAL ENVIRONMENTAL EFFECTS

Ecotoxicity:

No Information Available.

ENVIRONMENTAL FATE

Motorial/ Boreent

ation available.
ation available.
ation 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:	
NOS Technical Name:	
Hazard Class:	
Subsidiary Class(es):	
UN Number:	
Packing Group:	

None 3 None UN1263 Ш

Paint

USA - RQ Hazardous Substances: Xylenes

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<u>Material/</u> <u>CAS Number</u>	Percent	IARC Group <u>1(Kno</u> <u>Wn</u> Human Carc.)	IARC Group 2A (Proba ble Carc.)	<u>IARC</u> <u>2B (</u> <u>Suspec</u> <u>ted</u> <u>Carc.)</u>		<u>NTP</u> <u>Known</u> <u>Carc.</u>	<u>OSHA</u> <u>Carc.</u>
ETHYL BENZENE 100-41-4	0.1-1.0	N	N	Y	Ν	Ν	Y

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 20 HMIS Rating: 2*20

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: Section 11 has been updated. Section 2 has been updated. Changes to this section may also result in changes in sections 8, 11 and/or 15. 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.

KLFC160 000004 (00456068.001)(04/04/07) 070104, 000, 0814

*** END OF MSDS ***