

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917) January, 1979

SECTION I

MANUFACTURER'S NAME

PPG INDUSTRIES, INC.

EMERGENCY TELEPHONE NO.

(304) 843-1300

ADDRESS (Number, Street, City, State, and ZIP Code)

One Gateway Center, Pittsburgh, PA

CHEMICAL NAME AND SYNONYMS

Hydrated Amorphous Silicon Dioxide

TRADE NAME AND SYNONYMS

H1-Sil® 233 hydrated amorphous silica

CHEMICAL FAMILY

Non-Metallic Oxide

FORMULA

SiO₂

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	4046	SPECIFIC GRAVITY (H ₂ O=1)	2.00
VAPOR PRESSURE (mm Hg.)	None	PERCENT VOLATILE BY VOLUME (%)	None
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR	White, odorless powder		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	None	FLAMMABLE LIMITS	LeI	UeI
EXTINGUISHING MEDIA	N/A			
SPECIAL FIRE FIGHTING PROCEDURES	N/A			
UNUSUAL FIRE AND EXPLOSION HAZARDS	None			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	20 million particles per cubic foot (OSHA 29 CFR 1910.1000)
EFFECTS OF OVEREXPOSURE	Drying of skin and mucous membranes of nose and throat; drying action due to absorption of moisture and oils. Can cause irritation and occasional nosebleeds.
EMERGENCY AND FIRST AID PROCEDURES	See attached sheet

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID Avoid high-temperature (calcining) may be converted to crystalline
	STABLE	X	forms of silica
INCOMPATIBILITY (Materials to avoid) See attached sheet			
HAZARDOUS DECOMPOSITION PRODUCTS None			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID None
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Vacuum spilled material and place in closed plastic bags for disposal; then thoroughly flush area of spill with water.	
WASTE DISPOSAL METHOD Bury in sanitary landfill or contact local waste disposal contractor.	
NEVER FLUSH SPILLED MATERIAL TO SEWER.	

SECTION VIII - SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) NIOSH/MSHA-approved mechanical filter type, for exposure above TLV		
VENTILATION	LOCAL EXHAUST Sufficient to maintain employee exposure below TLV	SPECIAL
	MECHANICAL (General)	OTHER
PROTECTIVE GLOVES Cotton or rubber with right fitting wristlets.		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT Protective clothing to prevent skin contact		

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	See attached sheet
OTHER PRECAUTIONS	See attached sheet

MATERIAL SAFETY DATA SHEET ON HI-SIL® 233 HYDRATED AMORPHOUS SILICA

(JANUARY, 1979)

SECTION V - HEALTH HAZARD DATA

Emergency and First Aid Procedures

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If irritation occurs, consult a physician.

Skin Contact: Flush thoroughly with water. If irritation occurs, consult a physician.

Inhalation: If symptoms of discomfort or irritation occur due to apparent inhalation overexposure to Hi-Sil®, remove affected person to fresh air. If irritation or discomfort persists, consult a physician.

SECTION VI - REACTIVITY DATA

Incompatibility (Materials to Avoid)

Avoid alteration of product properties before use. Product surface alterations caused by calcining or mixing with additives may alter toxicological properties.

SECTION IX - PRECAUTIONS

Precautions to be Taken in Handling and Storing

- Wear respiratory protection when exposed to dust and in any event where exposure is above OSHA standard.
Respiratory protection must be NIOSH/MSHA-approved mechanical type filter.
- Store in dry, well-ventilated area.

Other Precautions

- Avoid prolonged or repeated inhalation of dust.
May irritate respiratory tract.
- Avoid prolonged, repeated or excessive contact with skin.
May cause irritation and discomfort.
- Wash thoroughly after handling.