



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Hi-Sil® 532EP
Product ID: 86734
SYNONYMS: Synthetic Precipitated Silicas; Hydrated Amorphous Silica; Silicon Dioxide; Flo-Gard®; Hi-Sil®; Lo-Vel®; San-Sil®; Silene®; SiO₂
ISSUE DATE: 12/16/2004
EDITION NO.: 2

PPG Industries, Inc.
One PPG Place, Pittsburgh, PA 15272, USA
24-hour Emergency Telephone Number: 1-412-434-4515
For Product Information (8am-5pm Eastern time):
1-800-243-6745 (Silica)

PREPARER: Product Safety, Chemicals

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Material/CAS Number</u>	<u>Percent</u>
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Hydrated, Amorphous Silica 112926-00-8	>87
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Contains no detectable crystalline silica (detection limit <0.01% by weight).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION! Dust may be irritating to eyes and upper respiratory tract. Prolonged or repeated skin contact may cause irritation due to drying action.

Precautions: Avoid contact with eyes. Avoid prolonged or repeated contact with the skin. Avoid prolonged, repeated or excessive inhalation. Use only with adequate ventilation. Ventilation must be sufficient to limit employee exposure to this product below permissible exposure limits. Wear respiratory protection when dust exposure is above permissible exposure limits. Wash thoroughly every day after work. Do not eat, drink or smoke in work area.

4. FIRST AID MEASURES

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

EYE/SKIN CONTACT: EYE: 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: 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.

INGESTION: Gently wipe or rinse the inside of the mouth with water. Sips of water can be given. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room or physician for treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: NA

EXTINGUISHING MEDIA: NA

SPECIAL FIREFIGHTING PROCEDURES: None known.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Vacuum spilled material and place in closed plastic bags for disposal.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

Store in a dry area. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Product surface alterations caused by calcining or mixing with additives may alter toxicological properties.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL)

OSHA: 6 mg/m³ (total dust)

ACGIH: 10 mg/m³ (total amorphous dust) TWA 3 mg/m³ (respirable nuisance particulate) TWA.

RESPIRATORY PROTECTION: Use NIOSH approved dust filter respirator for exposure above permissible exposure limits. The respiratory use limitations made by NIOSH or the manufacturer must be observed.

VENTILATION: Use local exhaust or general room/dilution ventilation sufficient to maintain employee exposure below permissible exposure limits.

EYE AND FACE PROTECTION: If eye exposure to powder is likely, use tight fitting chemical safety goggles.

PROTECTIVE GLOVES: Cloth. Leather. Rubber.

OTHER PROTECTIVE EQUIPMENT: Boots, aprons, or chemical suits should be used when necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	NA
Vapor Density (Air=1):	Not Applicable.
Specific Gravity (Water=1):	NA
pH:	7.5 - 8.5 (5% suspension)
FREEZING/MELTING POINT:	NA
SOLUBILITY (wt.% in water):	Essentially Insoluble
Bulk Density:	Variable
VOLUME % VOLATILE:	NA
VAPOR PRESSURE:	NONE
Evaporation Rate:	NA
HEAT OF SOLUTION:	NA
Physical State:	Powder or granules
Odor:	Odorless
COLOR:	White

10. STABILITY AND REACTIVITY

Stability: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (CONDITIONS/MATERIALS TO AVOID):

High temperatures (>800°C) treatment (calcining). Avoid alteration of product properties before use. Calcining, which may result in crystalline formation, or mixing with additives may alter toxicological properties.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:

None known.

11. TOXICOLOGICAL INFORMATION

SKIN IRRITATION: Mildly irritating.

EYE IRRITATION: Mildly irritating.

CARCINOGENICITY STATUS: This product is NOT listed as a carcinogen or suspected

carcinogen by NTP, IARC, ACGIH, or OSHA.

MEDICAL CONDITIONS AGGRAVATED: None known.

EFFECTS OF OVEREXPOSURE:

ACUTE: Excessive contact with powder can cause drying of mucous membranes of nose, eyes and throat due to absorption of moisture and oils. This material can also cause nasal and respiratory tract irritation and nosebleeds. Eye contact with powder can result in mild irritation.

CHRONIC: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposures.

Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/cu.m. per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals' lungs, most of the deposited material was cleared soon after the dust exposure ended.

The results of all studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silicas.

PPG recommends that persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

IARC reviewed the data on amorphous silica in 1996 and concluded there was inadequate evidence from both epidemiology and experimental studies that amorphous silica is a carcinogenic risk factor. The organization concluded that amorphous silica is in Group 3.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

EC₀: >1000 ppm (daphnia magna) (24-hour acute immobilization test) - Slight to very low toxicity.

EC₀: >10,000 ppm (rainbow trout) (4-day static study) - Slight to very low toxicity.

EC₀: >10,000 ppm (freshwater fish) (96-hour static acute toxicity study) - Slight to very low toxicity.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Waste from this product may be disposed of in a sanitary landfill if state and local regulations permit. Care should be taken to avoid creation of dust during disposal operations.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not regulated

15. REGULATORY INFORMATION

USA TSCA: Synthetic amorphous silica is listed on the TSCA Inventory as its general CAS# 7631-86-9.

EUROPE EINECS: Synthetic amorphous silica is listed on EINECS (231-545-4) as its general CAS# 7631-86-9.

CANADA DOMESTIC SUBSTANCES LIST (DSL): This product and/or all of its components are listed on the Canadian DSL.

AUSTRALIA AICS: All components of this product are listed on AICS.

KOREA ECL: All components in this product are listed on the Korean Existing Chemicals Inventory (KECI).

JAPAN MITI (ENCS): All components in this product are listed on the Japanese Existing and New Chemical Substances (ENCS) chemical inventory.

PHILIPPINES PICCS: All of the components in this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

SARA TITLE III:

SARA (311, 312) Hazard Class:

Acute Health Hazard.

SARA (313) Chemicals:

Not listed.

SARA Extremely Hazardous Substance:

Not listed.

CERCLA Hazardous Substance:

Not listed.

CANADA REGULATIONS (WHMIS): Not Applicable.

16. OTHER INFORMATION

The following has been revised since the last issue of this MSDS:

Date. Edition. Section 3 has been updated. Section 8 has been updated. Section 11 has been updated. Section 14 has been updated. Section 15 has been updated.

Previous revision date: 1/6/2004

Previous edition number: 1

NA = Not Available