Section 1 - Product and Company Identification
Product Name: High Performance Liquid Chromatography (HPLC) Column
Agilent Part Number: G1600-60233
Date Prepared: 10/27/03
Date Revised:
Manufacturer: Agilent Technologies, Inc.
2850 Centerville Road
Wilmington, Delaware 19808
USA Emergency Telephone Number: 1-302-633-8899
USA Information Telephone Number: 1-877-4Agilent
European Information Telephone Number: (7243) 602-2
European Emergency Telephone Number: 0049(0)6151/722440
When Calling from Outside the USA You May Also Dial Your International Access Code for the USA, then 1, then 302 633 8899

Section 2 - Composition/Information on Ingredients
HPLC columns are made of stainless steel tubes, glass-lined stainless steel capillaries or PEEK-encapsulated fused silica capillaries. Each column contains surface-modified, porous silica of 1.8 – 7 µm particle size. The surface-modified silica is made by chemically bonding an alkyl silane to the silica surface. No CAS number has been assigned to the final product.

Chemical Families: Surface modified amorphous silica. Chemical Synonyms: Silica gel is also known as precipitated silica and amorphous silica. PEEK is also known as Poly Ether Ether Ketone.

Section 3 - Hazards Identification
May cause eye irritation. Do not breathe dust.

Section 4 - First-Aid Measures
Inhalation: Symptoms of overexposure may include cough and discomfort. If large amounts are inhaled, move affected person to fresh air. If breathing is difficult give oxygen. If breathing has stopped begin resuscitation measures. Contact physician. Skin Contact: Wash with soap and water. Eye Contact: Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water by separating the eyelids with fingers. If redness or discomfort persist, contact a physician. Ingestion: This compound is not likely to be hazardous by ingestion. However, if swallowed, wash out mouth with water provided affected person is conscious. Consult a physician.

Section 5 - Fire-Fighting Measures
Extinguishing Media: Appropriate to surroundings. Special Fire Fighting Procedures: Wear full protective clothing and self-contained positive pressure breathing apparatus certified by NIOSH when fighting chemically related fires. Unusual Fire and Explosion Hazards: None

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Section 6 - Accidental Release Measures
Wearing appropriate personal protective equipment, shovel or sweep up using a dust suppresser. Vacuum the remainder of the smaller quantities using a HEPA-type vacuum. Avoid inhaling dust. Place waste in a plastic bag or other suitable container and dispose of as residual waste. This material is not defined as hazardous waste by RCRA (40 CFR Part 261) and may be landfilled according to federal, state and local regulations.

Section 7 - Handling and Storage
Do not breathe dust and avoid contact with skin and eyes. Wash thoroughly after handling. Maintain good housekeeping practices. Avoid creating dust. Keep containers closed. Do not store with incompatible materials. Store in a cool, dry place.

Section 8 - Exposure Controls/Personal Protection
Ventilation: Adequate ventilation is required to protect personnel from exposure to chemical vapors or dusts exceeding PEL and to minimize fire hazards. See Section 15 for regulatory standards of exposure. Respiratory: Use NIOSH approved respirator equipment. See Section 15. Eyes: Safety glasses are considered minimum protection. Chemical safety goggles or face shield may be necessary depending on quantity of material and conditions of use. Emergency eye wash fountains should be available in the vicinity of any possible exposure. Skin: Chemical-resistant protective gloves and clothing are recommended. The choice of protective gloves or clothing must be based on chemical resistance and other user requirements. Generally BUNA-N offers acceptable chemical resistance. Individuals who are acutely and specifically sensitive to this chemical may require additional protective clothing.

Section 9 - Physical and Chemical Properties
Flash Point (Method Used): NA
Explosion Potential: LEL ( NA )/UEL ( NA )
Specific Gravity (H20 = 1): ND
Boiling Point (Degree C): ND
Melting Point (Degree C): ND
Vapor Pressure (mm Hg at 25°C): ND
Evaporation Rate (n-butyl acetate =1 ): NA
Odor Threshold: ND
Vapor Density (Air =1): NA
Octanol/Water Partition Coefficient: NA
Solubility in Water: (X) Insoluble /Soluble ( )
Appearance and Odor: White powder, 1.8 - 7 μm particle size

Section 10 - Stability and Reactivity
Stability: Stable ( x ) / Unstable ( )
Conditions to Avoid: NA
Incompatibility (Materials to Avoid): Strong acids
Hazardous Decomposition or Byproducts: NA
Hazardous Polymerization: May Occur ( ) / Will Not Occur ( x)

Section 11 - Toxicological Information
Route(s) of Entry: Inhalation? Yes Skin? No Ingestion? Yes
Harmful if inhaled. Health Hazard Acute/Chronic: This product does not contain crystalline silica (CA) which is considered hazardous by inhalation.
Medical Conditions Generally Aggravated by Exposure: Preclude from exposure to dust those persons with preexisting upper respiratory and lung disease such as, but not limited to, bronchitis, emphysema and asthma.
Section 12 - Ecological Information
Persistence/Degradability: ND Biodegradability: Will not biodegrade Bioaccumulation: NA

Section 13 - Disposal Considerations
Unused product is not hazardous as defined by RCRA (40 CFR Part 261). Unused material may be landfilled as a residual waste according to federal, state and local regulations.

Section 14 - Transport Information
DOT Regulations: Non-regulated Material IATA-DGR Regulations: Non-regulated Material
Shipping Name: Non-regulated Material RID/ADR: NA ADNR: NA

Section 15 - Regulatory Information
Exposure Limits: There are no established exposure limits for this product—however if dust is generated by grinding or other means the following standard would apply: Particulate Matter Not Otherwise Classified: (PNOC)
OSHA PEL: 5 mg/m³ (Respirable fraction) 15 mg/m³ (Total dust)
ACGIH TWA: 3 mg/m³ (Respirable particulate) 10 mg/m³ (Inhalable particulate)

SARA Reporting: Section 302: None Section 304: None Section 313: None
OSHA Labeling Requirements: None

Section 16 - Other Information
Unless otherwise noted, the above information pertains only for the base material and similar types of components in the sample. When no toxicity data is provided, it is prudent to handle this chemical as hazardous. Furthermore, since individual chemical hypersensitivity cannot be predicted, every chemical should be handled with due respect.

EUROPEAN INFORMATION (Silica)
EEC No.: 231-545-4
CAUTION: SUBSTANCE NOT YET FULLY TESTED.
HARMFUL
R 20: Harmful by inhalation.
R 36/37: Irritating to eyes and respiratory system.
S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 36: Wear suitable protective clothing.
S 22: Do not breathe dust.

KEY TO ABBREVIATIONS
ACGIH - American Conference of Governmental Industrial Hygienists' ADNR - Regulations concerning the carriage of dangerous goods on the Rhine CAS - Chemical Abstract Service DOT - US. Department of Transportation 49 Code of Federal Regulations IARC - International Agency for Research on Cancer IATA-DGR - International Air Transport Association- Dangerous Goods Regulation LEL - Lower Explosion Limit NA - Not Applicable ND - No Data NIOSH - National Institute for Occupational Safety and Health NTP - National Toxicology Program OSHA - Occupational Safety and Health Administration PEL - Permissible Exposure Limit RID/ADR - Regulations Concerning the International Carriage of Dangerous Goods by Rail/European Agreement Concerning the International Carriage of Dangerous Goods by Road TLV - Threshold Limit Value TWA - Time Weighted Average UEL - Upper Explosion Limit [ ] - Indicates CAS Number