MATERIAL SAFETY DATA SHEET

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Section 1 - Product and Company Information Product Name POLYETHYLENE GLYCOL AV. MOL. WT. 200 Product Number P3015 SIAL Brand Company Sigma-Aldrich Street Address 3050 Spruce Street City, State, Zip, Country SAINT LOUIS MO 63103 US Technical Phone: 800-325-5832 314-776-6555 Emergency Phone: 800-325-5052 Fax: Section 2 - Composition/Information on Ingredient Substance Name CAS # SARA 313 POLY(ETHYLENE GLYCOL), AVERAGE ~200 25322-68-3 No Formula (C2H4O) nH2O Polyaethylenglykole #200 (German) Synonyms RTECS Number: ТОЗ600000 Section 3 - Hazards Identification HMIS RATING HEALTH: 0 FLAMMABILITY: 0 **REACTIVITY:** 0 NFPA RATING HEALTH: 0FLAMMABILITY: 0 REACTIVITY: 0 For additional information on toxicity, please refer to Section 11. Section 4 - First Aid Measures ORAL EXPOSURE If swallowed, wash out mouth with water provided person is conscious. Call a physician. INHALATION EXPOSURE If inhaled, remove to fresh air. If breathing becomes difficult, call a physician. DERMAL EXPOSURE In case of contact, immediately wash skin with soap and copious amounts of water. EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT N/A AUTOIGNITION TEMP 305 °C FLAMMABILITY N/A EXTINGUISHING MEDIA Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam. FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions. Section 6 - Accidental Release Measures METHODS FOR CLEANING UP Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete. Section 7 - Handling and Storage HANDLING User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Keep tightly closed. Section 8 - Exposure Controls / PPE ENGINEERING CONTROLS Safety shower and eye bath. Mechanical exhaust required. PERSONAL PROTECTIVE EQUIPMENT Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Hand: Protective gloves. Eye: Chemical safety goggles. GENERAL HYGIENE MEASURES Wash thoroughly after handling. Section 9 - Physical/Chemical Properties Appearance Physical State: Liquid Value At Temperature or Pressure Property

SIAL - P3015

pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content Solvent Content Evaporation Rate Viscosity Surface Tension Partition Coefficient Decomposition Temp. Flash Point Explosion Limits Flammability Autoignition Temp Refractive Index Optical Rotation Miscellaneous Data	N/A N/A N/A N/A N/A 2 0.01 mmHg > 1 g/1 N/A 1.127 g/cm3 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20	°C

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable. Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: May cause eye irritation. Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral Rat 28000 mg/kg

LD50 Oral Mouse 34000 mg/kg LD50 Intraperitoneal Mouse 7500 MG/KG LD50 Oral Rabbit 14000 mg/kg LD50 Skin Rabbit > 20000 mg/kg LD50 Oral Guinea pig 17000 mg/kg LD50 IRRITATION DATA Eyes Rabbit 500 mg Remarks: Mild irritation effect Section 12 - Ecological Information No data available. Section 13 - Disposal Considerations APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Section 14 - Transport Information DOT Proper Shipping Name: None Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport. IATA Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

UNITED STATES REGULATORY INFORMATION SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. DSL: Yes NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.