1 Identification

· Product identifier

· Trade name: POLYETHYLENE GLYCOL 1450

· Article number: 19750

· CAS Number:
  25322-68-3

· NLP Number:
  500-038-2

· Application of the substance / the mixture: Laboratory chemicals

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:
  Electron Microscopy Sciences
  1560 Industry Road
  USA-Hatfield, PA 19440
  Tel: 215-412-8400 Fax: 215-412-8450
  email: sgkcck@aol.com
  www.emsdiasum.com

· Information department: Product safety department

· Emergency telephone number:
  ChemTrec 1-800-424-9300 Contract CCN7661
  1-703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture

  Eye Irritation 2B H320 Causes eye irritation.

· Label elements

· GHS label elements: The substance is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms: Void

· Signal word: Warning

· Hazard statements:
  Causes eye irritation.

· Precautionary statements
  Wash thoroughly after handling.
  Wear protective gloves/protective clothing/eye protection/face protection.
  IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  Store in a dry place. Store in a closed container.

· Classification system:

· NFPA ratings (scale 0 - 4)

  Health = 1
  Fire = 1
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)

  HEALTH 1
  FIRE 1
  REACTIVITY 0

(Contd. on page 2)
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- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  - 25322-68-3 Polyethylene glycol
- Identification number(s)
  - NLP Number: 500-038-2

4 First-aid measures

- Description of first aid measures
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact:
    - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: If symptoms persist consult doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
  - No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
- Protective Action Criteria for Chemicals
  - PAC-1: 30 mg/m³
  - PAC-2: 1,300 mg/m³
7 Handling and storage

- Handling:
  - Precautions for safe handling: No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires: No special measures required.

- Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: Keep receptacle tightly sealed.

- Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>25322-68-3 Polyethylene glycol</td>
</tr>
<tr>
<td>WEEL Long-term value: 10 mg/m³ ( (H) ); MW&gt;200</td>
</tr>
</tbody>
</table>

- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      - Keep away from foodstuffs, beverages and feed.
      - Immediately remove all soiled and contaminated clothing.
      - Wash hands before breaks and at the end of work.
      - Avoid contact with the eyes.
      - Avoid contact with the eyes and skin.
  - Breathing equipment: Not required.

- Protection of hands:
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form:</td>
</tr>
<tr>
<td>Color:</td>
</tr>
<tr>
<td>Odor:</td>
</tr>
<tr>
<td>Odor threshold:</td>
</tr>
<tr>
<td>pH-value:</td>
</tr>
<tr>
<td>Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range:</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
</tr>
<tr>
<td>Flash point:</td>
</tr>
<tr>
<td>Flammability (solid, gaseous):</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
</tr>
<tr>
<td>Auto igniting:</td>
</tr>
<tr>
<td>Danger of explosion:</td>
</tr>
<tr>
<td>Explosion limits:</td>
</tr>
<tr>
<td>Lower:</td>
</tr>
<tr>
<td>Upper:</td>
</tr>
<tr>
<td>Vapor pressure:</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
</tr>
<tr>
<td>Relative density</td>
</tr>
<tr>
<td>Vapor density</td>
</tr>
<tr>
<td>Evaporation rate</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water:</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
</tr>
<tr>
<td>Viscosity:</td>
</tr>
<tr>
<td>Dynamic:</td>
</tr>
<tr>
<td>Kinematic:</td>
</tr>
<tr>
<td>VOC content:</td>
</tr>
<tr>
<td>Solids content:</td>
</tr>
<tr>
<td>Other information</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

· Reactivity: No further relevant information available.
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
· Primary irritant effect:
  · on the skin: No irritant effect.
  · on the eye: Irritating effect.
· Sensitization: No sensitizing effects known.
· Additional toxicological information:
· Carcinogenic categories
  · IARC (International Agency for Research on Cancer)
    Substance is not listed.
  · NTP (National Toxicology Program)
    Substance is not listed.
  · OSHA-Ca (Occupational Safety Health Administration)
    Substance is not listed.

12 Ecological information

· Toxicity
· Aquatic toxicity: No further relevant information available.
· Persistence and degradability: No further relevant information available.
· Behavior in environmental systems:
· Bioaccumulative potential: No further relevant information available.
· Mobility in soil: No further relevant information available.
· Additional ecological information:
· General notes:
  Water hazard class 1 (Assessment by list): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.
· Other adverse effects: No further relevant information available.
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13 Disposal considerations

· Waste treatment methods
  · Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:
  · Recommendation: Disposal must be made according to official regulations.
  · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number
  · DOT, ADR, IMDG, IATA Void

· UN proper shipping name
  · DOT, ADR, IMDG, IATA Void

· Transport hazard class(es)
  · DOT, ADR, ADN, IMDG, IATA Void

· Packing group
  · DOT, ADR, IMDG, IATA Void

· Environmental hazards: Not applicable.

· Special precautions for user Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": Void

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
  No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances):
  Substance is not listed.

· Section 313 (Specific toxic chemical listings):
  Substance is not listed.

· TSCA (Toxic Substances Control Act):
  ACTIVE

· Hazardous Air Pollutants
  Substance is not listed.

· Proposition 65

· Chemicals known to cause cancer:
  Substance is not listed.
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- **Chemicals known to cause reproductive toxicity for females:**
  - Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**
  - Substance is not listed.

- **Chemicals known to cause developmental toxicity:**
  - Substance is not listed.

- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - Substance is not listed.
  - **TLV (Threshold Limit Value)**
    - Substance is not listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - Substance is not listed.

- **GHS label elements**
  - The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - Void
  - **Signal word**
    - Warning
  - **Hazard statements**
    - Causes eye irritation.
  - **Precautionary statements**
    - Wash thoroughly after handling.
    - Wear protective gloves/protective clothing/eye protection/face protection.
    - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
    - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
    - Store in a dry place. Store in a closed container.
  - **Chemical safety assessment**
    - A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Contact:**
- **Date of preparation / last revision** 02/07/2023
- **Abbreviations and acronyms:**
  - ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - Eye Irritation 2B: Serious eye damage/eye irritation – Category 2B