Safety Data Sheet

1. Material and Supply Company Identification

Product Name: PeCOD® Calibrant
Chemical Name: Sorbitol Solution

Synonyms:
Advanced Blue Range Calibrant
Green Range Calibrant
Yellow Range Calibrant
Red Range Calibrant

Product Use: For the calibration of the MANTECH PeCOD® Analyzer. Laboratory and industrial use only.

Manufacturer Information:
579453 Ontario Inc.
o/a MANTECH
5473 Highway 6 North
Guelph, ON, N1H 6J2
Phone: 519-763-4245
Emergency Phone Number: 519-763-4245 or 519-835-5252

2. Hazards Identification

Classification of the Product: Clear colourless liquid. Odourless.

Potential Health Effects:
Eyes: Irritation would not be expected upon contact with eyes.
Skin: No skin irritation is expected from single short term exposure. Prolonged or repeated exposure may result is slight irritation.
Ingestion: No significant adverse effects are expected upon ingestion of this product. Ingestion of large amounts may result in stomach irritation.
Inhalation: Inhalation of this product would not be expected to produce adverse effects.

HMIS Ratings:
Health: 0
Fire: 0
Physical Hazard: 0

Hazard Scale: 0 = Minimal
            1 = Slight
            2 = Moderate
            3 = Serious
            4 = Severe
            * = Chronic
3. Composition Information

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorbitol</td>
<td>50-70-4</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Silver Nitrate</td>
<td>7761-88-8</td>
<td>&lt;0.01%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Balance</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Eye:** Wash with running water for at least 15 minutes. Seek medical attention if irritation develops.

**Skin:** Wash area with soap and water. Seek medical attention if irritation develops.

**Ingestion:** If uncomfortable, seek medical attention.

**Inhalation:** Remove patient to fresh air. Seek medical attention for any breathing difficulties.

**Advice to Doctor:** Treat symptomatically.

5. Fire-Fighting Measures

**General Fire Hazards:**
Non-combustible solution.

**Hazardous Combustion Properties:**
None identified.

**Extinguishing Media:**
Not combustible, however, if material is involved in a fire use dry chemical, foam, carbon dioxide, water fog.

**Fire Fighting Equipment/Instructions:**
Firefighters should wear self-contained breathing apparatus and suitable protective clothing.

**NFPA Ratings:**
- **Health:** 0
  - 0 = Minimal
  - 3 = Serious
- **Fire:** 0
  - 1 = Slight
  - 4 = Severe
- **Physical Hazard:** 0
  - 2 = Moderate
6. Accidental Release Measures

**Containment Procedures:**
Contain the discharged material.

**Clean-Up Procedures:**
Wear appropriate personal protective equipment. Absorb spill with inert material such as lime, polypads, or other suitable absorbent material.

**Evacuation Procedures:**
None necessary.

**Special Procedures:**
Follow all local, State, Federal, and Provincial regulations for disposal. Wash area down with excess water.

7. Handling and Storage

**Handling Procedures:**
Avoid eye contact and repeated or prolonged skin contact. Exercise good industrial and personal hygiene procedures.

**Storage Procedures:**
Keep container tightly closed, and store at room temperature.
8. Exposure Controls / Personal Protection

Exposure Guidelines
A: General Product Information:
Exposures should be minimized in accordance with good industrial hygiene practices

B: Component Exposure Limits:
ACGIH, OSHA, NIOSH or the provinces of Canada have not developed exposure limits for this product

Engineering Controls:
Not Necessary. Natural ventilation should be adequate under normal conditions. Keep containers closed when not in use.

Personal Protective Equipment (PPE)
Eyes/Face: Wear safety glasses
Skin: Wear impervious (neoprene) gloves and cotton/polyester lab coat or overalls
Respiratory: Use in a ventilated area.
General: Wash hands after handling material and before eating or drinking.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, colourless</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>pH</td>
<td>4-6</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;100°C (220°F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Similar to Water</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not Available</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not Available</td>
</tr>
<tr>
<td>Solubility (H₂O)</td>
<td>Miscible with Water</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not Available</td>
</tr>
<tr>
<td>Auto Ignition Temperature</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Chemical Stability:
This is a stable material.

Conditions of Avoid:

Incompatibility:
Strong oxidizers.

Hazardous Decomposition Products:
Decomposition may yield Carbon Monoxide, Carbon Dioxide, and/or low molecular weight hydrocarbons when heated.

11. Toxicological Information

ACUTE DOSE EFFECTS
   A: General Product Information:
      Over exposure may be irritating to contaminated tissues, but is reversible when removed from exposure

   B: Component Analysis – LD50 / LC50:
      No LD50 or LC50 available for this product.

Epidemiology:
No Epidemiology data is available for this product

Carcinogenicity:
   A: General Product Information:
      No carcinogenicity data available for this product

   B: Component Carcinogenicity:
      None of the products components are listed by ACGIH, IARC, OSHA, NIOSH or NTP

Mutagenicity:
No mutagenicity data available for this product
Teratogenicity:
No Teratogenicity data available for this product

Neurological Effects:
No Neurological data available for this product

Other Toxicological Information:
No additional information available

12. Ecological Information

Ecotoxicity:
No Ecotoxicity data available for this product

Environmental Fate:
No information available for this product

13. Disposal Considerations

Disposal Instructions:
Dispose of waste according to Local, State, Federal and Provincial Environmental Regulations.

14. Transport Information

UN Number: None allocated
UN Proper Shipping Name: None allocated
DG Class & Subsidiary Risk: None allocated
Packing Group: None allocated

DOT:
This product is not regulated as a hazardous material for transportation

IATA:
This product is not regulated as a hazardous material for transportation

IMDG:
This product is not regulated as a hazardous material for transportation
15. Regulatory Information

**US Federal regulations**
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

**Canadian regulations**
Not listed on the Canadian DSL (Domestic Substances List) inventory

**WHMIS Classification:** Not classified by WHMIS.
Not listed on the Canadian Ingredient Disclosure List

**EU Regulations**
No additional information available

16. Other Information

Workers should be trained to handle hazardous chemicals. It is recommended that they are familiar with the contents of this safety data sheet (SDS). This SDS is not a risk assessment; recipients are advised to make their own risk assessment as required by other Health and Safety legislations.

**Created:** June 20, 2012

**Revised:** September 29, 2017

**Reference:** Not Available

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