IDENTIFICATION

MSDS Record Number: 5618729
Product Name(s): Polysorbate 80
Product Identification: MSDS NUMBER: T7683
                     PRODUCT CODE: 2903, 4091, X257, 7091, H286
                     C.A.S. NUMBER: 9005-65-6
Date of MSDS: 2007-08-02
Currency Note: This MSDS was acquired from the supplier on 2007-09-06.

MANUFACTURER/SUPPLIER INFORMATION

Company: MALLINCKRODT BAKER INC

MATERIAL SAFETY DATA

Effective Date: 08/02/07
Supercedes: 11/04/04

MSDS MATERIAL SAFETY DATA SHEET
From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

Emergency Telephone Number: 908-859-2151
NOTE: Use CHEMTREC and CANUTEC phone numbers only in the event of a chemical emergency.

All non-emergency questions should be directed to Customer Service
(1-800-582-2537) for assistance.

M A L L I N C K R O D T  
J. T. B A K E R

Polysorbate 80

1. Product Identification
   Synonyms: Polyoxyethylene (20) sorbitan monooleate; Polysorbate 80 NF
   CAS No: 9005-65-6
   Molecular Weight: Not applicable.
   Chemical Formula: Not applicable.
   Product Codes: J.T. Baker:
                 2903, 4091, X257
                 Mallinckrodt:
2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysorbate 80</td>
<td>9005-65-6</td>
<td>90 - 100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

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CAUTION! MAY CAUSE EYE IRRITATION.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

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Health Rating: 1 - Slight
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB CORT; PROPER GLOVES
Storage Color Code: Green (General Storage)

Potential Health Effects

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Inhalation:
Not expected to be a health hazard.

Ingestion:
Not expected to be a health hazard via ingestion. Large doses may produce abdominal spasms, diarrhea.

Skin Contact:
No adverse effects expected. May cause irritation or sensitization in sensitive individuals.

Eye Contact:
May cause mild irritation, possible reddening.

Chronic Exposure:
No information found.

Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:
Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:
Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire:
Flash point: 148°C (296°F) CC
Not considered to be a fire hazard.

 Explosion:
Not considered to be an explosion hazard.

Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures
Clean-up personnel may require protective clothing. Absorb in sand or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage
Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection
Airborne Exposure Limits:
None established.

Ventilation System:
Not expected to require any special ventilation.

Personal Respirators (NIOSH Approved):
Not expected to require personal respirator usage.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties
   Appearance: Amber liquid.
   Odor: Odorless.
   Solubility: Soluble in water.
   Specific Gravity: 1.08
   pH: 5-7 (5% aqueous solution)
   % Volatiles by volume @ 21°C (70°F): No information found.
   Boiling Point: > 100°C (> 212°F)
   Melting Point: No information found.
   Vapor Density (Air=1): No information found.
   Vapor Pressure (mm Hg): < 1.0 @ 20°C (68°F)
   Evaporation Rate (BuAc-1): No information found.

10. Stability and Reactivity
    Stability: Stable under ordinary conditions of use and storage.
    Hazardous Decomposition Products:
    Carbon dioxide and carbon monoxide may form when heated to decomposition.
    Hazardous Polymerization:
    Will not occur.
    Incompatibilities:
    Strong oxidizers, acids.
    Conditions to Avoid:
    Incompatibles.

11. Toxicological Information
Oral Rat LD50: 34500 ul/kg. Irritation Data (std Draize, rabbit): Eye = 150 mg, mild. Investigated as a tumorigen, mutagen, reproductive effector.

---NTP Carcinogen---
Known Anticipated IARC Category
Polysorbate 80 (9005-65-6) No No None

12. Ecological Information
Environmental Fate:
No information found.
Environmental Toxicity:
No information found.

13. Disposal Considerations
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information
Not regulated.

15. Regulatory Information

---Chemical Inventory Status - Part 1---
Ingredient TSCA EC Japan Australia
Polysorbate 80 (9005-65-6) Yes No Yes Yes

---Chemical Inventory Status - Part 2---
Ingredient Korea DSL NSL Phi.
Polysorbate 80 (9005-65-6) Yes Yes No Yes

---Federal, State & International Regulations---
Ingredient RQ TPQ List Chemical Catg.
Polysorbate 80 (9005-65-6) RQ No No

---Federal, State & International Regulations---
Ingredient CERCLA
Polysorbate 80 (9005-65-6) No
Chemical Weapons Convention: No
SARA 311/312: Acute: Yes Chronic: No
Reactivity: No

Australian Hazchem Code: None allocated.
Australian Poison Schedule: None allocated.

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information
NFPA Ratings:
Health: 1  Flammability: 0  Reactivity: 0
Label Hazard Warning:
CAUTION! MAY CAUSE EYE IRRITATION.
Label Precautions:
Avoid contact with eyes.
Keep container closed.
Wash thoroughly after handling.
Label First Aid:
In case of contact, immediately flush eyes or skin with plenty of water
for at least 15 minutes. Get medical attention if irritation develops or
persists.
Product Use:
Laboratory Reagent.
NOT INTENDED FOR INJECTABLE DRUG USE.
Revision Information:
No Changes.
Disclaimer:
******************************************************************************
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Prepared by: Environmental Health & Safety
Phone Number: (314) 654-1600 (U.S.A.)
T7683

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www.ccohs.ca  E-mail: clientservice@ccohs.ca  Fax: (905) 572-2206  Phone: (905) 572-2981
Mall: 135 Hunter Street East, Hamilton Ontario L8N 1M5