**IDENTIFICATION**

**MSDS Record Number:** 5618728  
**Product Name(s):** Polysorbate 20  
**Product Identification:** MSDS NUMBER: T7644  
PRODUCT CODE: 4033, 4034, X251, H285  
C.A.S. NUMBER: 9005-64-5

**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  
**Supersedes:** 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.

MALLINCKRODT J. T. BAKER

Polysorbate 20

1. **Product Identification**

   **Synonyms:** Polyoxyethylene sorbitan monolaurate; Polysorbate 20 NF

   **CAS No:** 9005-64-5

   **Molecular Weight:** Not applicable to mixtures.

   **Chemical Formula:** Not applicable to mixtures.

   **Product Codes:** J.T. Baker: 4033, 4034, X251

   Mallinckrodt:

   

H285

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 20</td>
<td>9005-64-5</td>
<td>100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES.
SAF-T-DATA™ Ratings (Provided here for your convenience)

<table>
<thead>
<tr>
<th>Health Rating: 1 - Slight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability Rating: 1 - Slight</td>
</tr>
<tr>
<td>Reactivity Rating: 0 - None</td>
</tr>
<tr>
<td>Contact Rating: 1 - Slight</td>
</tr>
<tr>
<td>Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES</td>
</tr>
<tr>
<td>Storage Color Code: Green (General Storage)</td>
</tr>
</tbody>
</table>

Potential Health Effects

Inhalation:
Not expected to be a health hazard.

Ingestion:
Large doses may produce abdominal spasms, diarrhea.

Skin Contact:
May cause irritation or sensitization in sensitive individuals.

Eye Contact:
May cause irritation.

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:
Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Skin Contact:
Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention 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 (298°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
Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

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: Boiling Point:
Amber liquid. > 100°C (> 212°F)
Odor: Melting Point:
No information found. No information found.
Solubility: Vapor Density (Air=1):
No information found. No information found.
Soluble in water.
Specific Gravity: Vapor Pressure (mm Hg):
1.11 < 1.0 @ 20°C (68°F)
pH:
No information found. Evaporation Rate (BuAc=1):
No information found. No information found.
% Volatiles by volume @ 21°C (70°F): 3.0

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: 36,700mg/kg. Investigated as a reproductive effector.
-----\Cancer Lists\-----

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NTP Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Known</td>
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<tr>
<td></td>
<td>Anticipated</td>
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<tr>
<td>Polysorbate 20 (9005-64-5)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>

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\-----
<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
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<tbody>
<tr>
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</table>

-----\Chemical Inventory Status - Part 2\-----

<table>
<thead>
<tr>
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<th>Korea</th>
<th>DSL</th>
<th>NSDSL</th>
<th>Phil.</th>
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<tbody>
<tr>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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</tbody>
</table>

-----\Federal, State & International Regulations\-----

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List</th>
<th>Chemical Catg.</th>
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</thead>
<tbody>
<tr>
<td>Polysorbate 20 (9005-64-5)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

-----\Federal, State & International Regulations\-----

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CERCLA</th>
<th>261.33</th>
<th>8(d)</th>
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<tbody>
<tr>
<td>Polysorbate 20 (9005-64-5)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No
TSCA 12(b): No
COTPA: No
SARA 311/312: Acute: Yes Chronic: No
Fire: No Pressure: No
Reactivity: No
(Pure / Liquid)

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 IRRITATION TO SKIN AND EYES.

Label Precautions:
Avoid contact with eyes, skin and clothing.
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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T7644

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