

Material Safety Data Sheet (MSDS)

Product Name: Tween 80 Commercial Grade

MSDS Generate Date: 20-05-2017

Revision Date: 30-12-2024

Supplier:

Rawpharma Biz Pvt Ltd

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1. Identification of the Substance/Preparation and Company

Product Name: Tween 80 (Polysorbate 80)

Synonyms: Polyoxyethylene (20) sorbitan monooleate

Chemical Formula: $C_{64}H_{124}O_{26}$

CAS No.: 9005-65-6

Recommended Use: Emulsifier, Solubilizer, Surfactant in pharmaceutical, cosmetic, and food industries.

2. Hazards Identification

- **Classification (GHS):** Not classified as hazardous.
- **Signal Word:** None
- **Hazard Statements:** Not hazardous under normal use.
- **Precautionary Statements:**
 - Avoid prolonged contact with eyes or skin.

- Ensure good industrial hygiene and workplace safety.
 - **Potential Health Effects:**
 - **Inhalation:** Non-volatile; unlikely route of exposure.
 - **Skin Contact:** Prolonged contact may cause mild irritation.
 - **Eye Contact:** May cause slight transient irritation.
 - **Ingestion:** Low toxicity; may cause mild gastrointestinal upset.
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3. Composition / Information on Ingredients

Chemical Name: Polysorbate 80

CAS No.: 9005-65-6

Purity: Commercial Grade (~98–100%)

Impurities/Adjuvants: None significant affecting classification.

4. First Aid Measures

- **Inhalation:** Move person to fresh air; seek medical attention if symptoms persist.
 - **Skin Contact:** Wash with soap and water. Remove contaminated clothing.
 - **Eye Contact:** Rinse thoroughly with plenty of water for several minutes.
 - **Ingestion:** Rinse mouth and drink water. Seek medical attention if feeling unwell.
 - **Notes to Physician:** Treat symptomatically.
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5. Firefighting Measures

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, CO₂.
 - **Unsuitable Media:** None known.
 - **Special Hazards:** May produce carbon oxides (CO, CO₂) during combustion.
 - **Protective Equipment:** Use self-contained breathing apparatus and protective clothing.
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6. Accidental Release Measures

- **Personal Precautions:** Avoid contact with skin and eyes. Wear protective gloves.
 - **Environmental Precautions:** Prevent entry into drains or watercourses.
 - **Cleanup Methods:** Absorb with inert material (sand, earth). Collect and dispose of properly. Wash spill area thoroughly.
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7. Handling and Storage

- **Handling:** Handle with adequate ventilation. Avoid direct contact with skin and eyes.
 - **Storage:** Store in tightly closed containers in a cool, dry place. Protect from heat, moisture, and sunlight.
 - **Incompatibilities:** Strong oxidizing agents.
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8. Exposure Controls / Personal Protection

- **Occupational Exposure Limits:** Not established.
 - **Engineering Controls:** Ensure adequate ventilation.
 - **Personal Protective Equipment:**
 - **Respiratory Protection:** Not required under normal conditions.
 - **Skin Protection:** Protective gloves recommended.
 - **Eye Protection:** Safety goggles recommended.
 - **Hygiene Measures:** Wash hands after handling.
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9. Physical and Chemical Properties

- **Appearance:** Amber to yellow viscous liquid
- **Odor:** Mild characteristic odor
- **pH (5% solution):** 5.0–7.0
- **Boiling Point:** >100°C
- **Melting Point:** Not applicable
- **Flash Point:** >149°C (closed cup)

- **Solubility:** Miscible with water and ethanol
 - **Density:** 1.06 g/cm³ (approx.)
 - **Viscosity:** 300–500 cP (25°C)
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10. Stability and Reactivity

- **Stability:** Stable under recommended storage conditions.
 - **Reactivity:** No known hazardous reactions.
 - **Conditions to Avoid:** Excessive heat, open flames.
 - **Incompatible Materials:** Strong oxidizers.
 - **Hazardous Decomposition Products:** CO, CO₂.
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11. Toxicological Information

- **Acute Toxicity (Oral, Rat):** LD₅₀ > 25,000 mg/kg
 - **Skin Irritation:** Mild, transient
 - **Eye Irritation:** Mild, reversible
 - **Carcinogenicity / Mutagenicity / Reproductive Toxicity:** Not classified as hazardous.
 - **Sensitization:** Not known to cause sensitization.
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12. Ecological Information

- **Ecotoxicity:** Low toxicity to aquatic life.
 - **Persistence and Degradability:** Readily biodegradable.
 - **Bioaccumulation Potential:** Low.
 - **Mobility in Soil:** High mobility due to solubility in water.
 - **Other Adverse Effects:** None known.
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13. Disposal Considerations

- Dispose of in accordance with local, regional, and national regulations.

- Do not discharge into drains or natural water sources.
- Recycle or incinerate under controlled conditions.

14. Transport Information

UN Number: Not regulated.

UN Proper Shipping Name: Polysorbate 80 Solution (Non-Hazardous Substance)

Transport Hazard Class: Not applicable (Non-dangerous goods)

Packing Group: Not applicable

Label Required: None

Detailed Transport Notes:

- **Road/Rail (ADR/RID):** Not classified as hazardous. Transport in clean, dry, closed containers.
- **Sea (IMDG):** Not classified as marine pollutant. Store below deck to avoid sunlight and heat exposure.
- **Air (IATA/ICAO):** Not restricted. Ensure containers are leakproof and properly sealed.
- **Environmental Hazards:** None identified; product is biodegradable and poses minimal risk to aquatic or terrestrial environments.
- **Transport Precautions:**
 - Avoid physical damage or leakage during transit.
 - Use tightly sealed HDPE or steel drums.
 - Maintain temperature below 40°C to prevent viscosity changes.
 - Label containers clearly with product name and supplier details.

15. Regulatory Information

- **Regulations:**
 - Not classified as hazardous under GHS, REACH, or OSHA standards.
 - Listed in the US FDA inactive ingredient database.
 - Approved for use in food, cosmetic, and pharmaceutical formulations.

16. Other Information

Disclaimer:

The information provided in this MSDS is based on current knowledge and is believed to be accurate. It is the responsibility of the user to ensure safe handling and compliance with local regulations.

- **MSDS Generate Date:** 20-05-2017
- **Revision Date:** 30-12-2024
- **Website:** www.rawpharmabiz.com
- MSDS are based on the manufacturer's provided information.