Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Tween 80
Synonyms: Polyethylene glycol sorbitan monooleate, Polyoxyethylene(20) sorbitan monooleate, Polysorbate 80
CAS-No: 9005-65-6
EC-No.: 500-019-9
Molecular Formula: No data available

REACH Registration No: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2. Relevant identified uses of the substance or mixture and uses advised against:

Recommended Use: Laboratory chemicals and Pharmaceutical excipient.

1.3. Details of the supplier of the safety data sheet:

- Company: Finar Limited
  184-186/P, Chacharwadi Vasna,
  Sarkhej-Bavla Highway,
  Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.
  Web: www.finarchemicals.com

- E-Mail Address: safety.finar@aceto.com; info.finar@aceto.com

1.4. Emergency Telephone Number:

- For Emergency contact on: +91 - 2717 - 616 717
SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.2. Label Elements:
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.3. Other Hazards:
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Tween 80

3.2. Mixtures:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tween 80</td>
<td>9005-65-6</td>
<td>500-019-9</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **If inhaled**
  After inhalation: fresh air.

- **If Contact with skin**
  In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

- **In case of eye contact**
  After eye contact: rinse out with plenty of water. Remove contact lenses.

- **If swallowed**
  After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2. Most important symptoms and effects, both acute and delayed:
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.
4.3. Indication of any immediate medical attention and special treatment needed:

No data available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:
Suitable Extinguishing Media- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:
Nature of decomposition products not known.
Combustible liquid.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.

5.3. Advice for firefighters:
In the event of fire, wear self-contained breathing apparatus.

5.4 Further Information:
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:
Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2. Environmental precautions:
Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material.
Dispose of properly. Clean up affected area.

6.4. Reference to other sections:
For disposal see Sections 13.
SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:
Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities:
Storage conditions
Keep containers tightly closed in a dry and well-ventilated place. Store indoors.

7.3. Specific end use(s):
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:
Ingredients with workplace control parameters

8.2. Exposure Controls:
Personal Protective Equipment:
- Eye & Face Protection-
  Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
- Hand Protection -
  This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
  Full contact: -
  Material: Nitrile rubber
  Minimum layer thickness: 0.4 mm
  Break through time: 480 min
  Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)
  This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from
those stated in EN374 please contact the supplier of CE-approved gloves 
(e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact: -

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 30 min
Material tested: KCL 741 Dermatril® L

- Respiratory Protection-
Not required, except in case of aerosol formation.

- Environmental Exposure Controls-
Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

- **Appearance:** Yellow
- **Physical State:** Viscous Liquid
- **Odor:** No data available
- **Odor Threshold:** No data available
- **pH:** 6.0 in 10 % aq. solution
- **Melting Point:** No data available
- **Critical Temperature:** No data available
- **Vapor Pressure:** <1 hPa at 20 °C
- **Vapor Density:** > 1.0
- **Specific Gravity:** 1.080
- **Auto-Ignition Temperature:** No data available
- **Ignition Temperature:** No data available
- **Volatility:** No data available
- **Density:** 1.07 g/cm3 at 25 °C
- **Viscosity:** 400 mPa.s at 25°C
- **Water/Oil Dist. Co eff.:** No data available
### SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:**
Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2. **Chemical stability:**
The product is chemically stable under standard ambient conditions (room temperature).

10.3. **Possibility of hazardous reactions:**
Violent reactions possible with: Strong oxidizing agents

10.4. **Conditions to avoid:**
Incompatible products. Excess heat.

10.5. **Incompatible materials:**
Strong oxidizing agents, Bases, Heavy metals

10.6. **Hazardous decomposition products:**
Carbon monoxide (CO), Carbon dioxide (CO2)
In the event of fire: See section 5.

### SECTION 11: TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects:

**Acute toxicity**
LD50 Oral - Rat - 34,500 mg/kg
Remarks: (RTECS)
Inhalation: No data available
Dermal: No data available

**Skin irritation**
Skin - Rabbit
Result: No skin irritation
Remarks: (External MSDS)

**Eye irritation**
Eyes - Rabbit
Result: No eye irritation
Remarks: (External MSDS)

**Sensitisation**
No data available

**Germ cell mutagenicity**
No data available
Test Type: Ames test
Test system: Salmonella typhimurium
Result: negative
Remarks: (National Toxicology Program)

**Carcinogenicity**
No data available

**Reproductive toxicity**
No data available

**Teratogenicity**
No data available
11.2 Further Information:
RTECS: WG2932500
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:
Toxicity to fish
No data available
Toxicity to daphnia and other aquatic invertebrates
No data available
Toxicity to algae
No data available

12.2 Persistence and degradability:
Biodegradability Result: 52 % - Not readily biodegradable. (OECD Test Guideline 301C)
Chemical Oxygen Demand (COD) 1.750 mg/g Remarks: (External MSDS)

12.3 Bioaccumulate potential:
No data available

12.4 Mobility in soil:
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects:
No data available
SECTION 13: Disposal considerations

13.1 Waste treatment methods:
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th></th>
<th>Land transport (ADR/RID)</th>
<th>Air transport (IATA)</th>
<th>Sea transport (IMDG)</th>
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<tbody>
<tr>
<td>14.1 UN number</td>
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<tr>
<td>14.2 Proper shipping name</td>
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<tr>
<td>14.3 Class</td>
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<tr>
<td>14.4 Packing group</td>
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<tr>
<td>14.5 Environmentally hazardous</td>
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<tr>
<td>14.6 Special precautions for user</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
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</table>

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment:
For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Training advice
Provide adequate information, instruction and training for operators.
**Product Name** | **Tween 80**
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**References:** Not available

**Created:** 16/02/2022

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.