



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

**MATERIAL SAFETY DATA SHEETS**

**SECTION I**

**PRODUCT AND COMPANY IDENTIFICATION**

**Product: POLYSORBATE 80**

**This MSDS is valid for all grades and catalog #'s**

Synonyms: Polyoxyethylene 20 sorbitan monooleate;  
Polyethylene oxide sorbitan mono-oleate; Polyoxyethylene  
sorbitan monooleate; Polyoxyethylene sorbitan oleate;  
Sorbitan mono-9-octadecenoate poly(oxy-1,2-ethanediyl)  
derivatives; Sorethytan (20) monooleate  
Formula: Not available.

Manufacturer: PHARMCO-AAPER  
58 Vale Road  
Brookfield, Connecticut 06804, USA  
Phone (203) 740-3471  
Fax (203) 740-3481

1101 Isaac Shelby Drive  
Shelbyville, KY 40065  
Phone (502) 633-0650  
Fax (502) 633-0685

Emergency Contact:  
CHEMTREC 1-800-424-9300

**SECTION II**

**COMPOSITION /INFORMATION ON INGREDIENTS**

% by Material CAS # TLV/PE LC50/LD50  
weight L

% by weight	Material	CAS #	TLV/PE L	LC50/LD50
100	Polysorbate 80	9005-65-6	Not available	ORAL (LD50): Acute: 25000 mg/kg [Rat].

**SECTION III**

**HAZARDS IDENTIFICATION**

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

**SECTION IV**

**FIRST AID**

Obtain medical attention for all cases of over-exposure.

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Hazardous Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Hazardous Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Hazardous Ingestion:** Not available.

**SECTION V**

**FIRE FIGHTING MEASURES**

**Fire:**

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition temperature: Not available.

Flash point: CLOSED CUP: >148.89°C (300°F).

Flammable limits: Not available.

Products of Combustion: Not available.

**Fire Hazards:** Slightly flammable to flammable in presence of heat.

**Explosion Hazards:** Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Extinguishing Media:** SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Information:** Not available.

**SECTION VI**

**SPILL/ACCIDENTAL RELEASE MEASURES**

**Small Spill:** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish

cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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## SECTION VII

### HANDLING AND STORAGE

**Precautions:** Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.  
**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 32.2°C (90°F). Preferably store at temperatures between 50 deg F to 90 deg. F.

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## SECTION VIII

### EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:** Safety glasses. Synthetic apron. Gloves (impervious). Respiratory protection is not necessary for normal handling. This product has a low vapor pressure (below 1mm Hg) and is not expected to pose an inhalation hazard. Adequate general (room) ventilation or local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

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## SECTION IX

### PHYSICAL AND CHEMICAL PROPERTIES

**Physical State/Appearance:** Liquid. (Oily liquid.)

**Molecular Weight:** Not available.

**Odor:** fatty (Slight.)

**Taste:** Not available.

**Color:** Clear Amber. Yellow.

**pH (1% Solution in Water):** 7 [Neutral.]

**Boiling Point:** >100°C (212°F)

**Melting Point:** -20.556°C (-5°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 1.06 - 1.10 (Water = 1)

**Vapor Pressure (mm Hg):** <0.1 kPa (@ 20°C)

**Vapor Density (Air=1):** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Water/Oil Dist. Coefficient:** Not available.

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**Ionicity (in water):** Not available.

**Dispersion Properties:** See solubility in water, methanol.

**Solubility:** Easily soluble in cold water, hot water. Soluble in methanol. Soluble in Toluene, alcohol, cottonseed oil, corn oil, Ethyl Acetate. Insoluble in mineral oil.

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## SECTION X

### STABILITY/REACTIVITY INFORMATION

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, incompatible materials

**Incompatibilities:** Reactive with oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass, of stainless steel(304), of stainless steel(316).

**Special Information:** Not available.

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## SECTION XI

### TOXICOLOGICAL INFORMATION

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 25000 mg/kg [Mouse]; >36000 mg/kg [Rat]

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Information on Toxicity to Animals:** Lethal Dose/Conc 50% Kill: LD50 [Rat] - Route: Oral; Dose: 34500 ul/kg

**Special Information on Chronic Effects/Toxicity on Humans:** May cause adverse reproductive effects based on animal test data. No human data found. May cause cancer based on animal test data. No human data found. May affect genetic material (mutagenic). Acute Potential Health Effects:  
on other Toxic Skin: No irritation is expected, but it may cause mild/slight irritation in more sensitive individuals. It will probably not be absorbed through the skin. Eyes: It may cause eye irritation. Inhalation: No expected to be a health hazard. No irritation is expected to be associated with the inhalation of this material. No toxic effects are known to be associated with the inhalation of this material. Ingestion: This material is not likely to cause irritation upon ingestion. It is classified as "relatively harmless" by ingestion and considered to be a low ingestion hazard. Ingestion of very large doses may cause abdominal spasms and diarrhea. Animal studies have shown it to cause cardiac changes, changes in behavior (altered sleep time) and weight loss (upon repeated or prolonged ingestion). However, no similar human data has been reported.

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## SECTION XII

### ECOLOGICAL INFORMATION

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:** Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** Not available.

**Special Information on Products of Biodegradation:** Not available.

**SECTION XIII  
DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Recycle to process, if possible. Consult your local or regional authorities.

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**SECTION XIV  
TRANSPORTATION INFORMATION**

**DOT Classification:** DOT Not a DOT controlled material (United States).

**UN:** Not applicable.

**Special Provisions for Transport:** Not applicable.

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**SECTION XV  
REGULATORY INFORMATION**

**Federal and State Regulations:**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are:

**NONE**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: **NONE**

Pennsylvania Right-To-Know, Hazardous substance List, Hazardous Substances and Special hazardous Substances on the list must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are: **NONE**

Massachusetts Right-To-Know, Substance List (MSL) Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. Components present in this product at a level which could require reporting under the statute are: **NONE**

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are: **NONE**

**Other Classifications:**

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations.

**Protective Equipment:** Gloves (impervious). Synthetic apron. Safety glasses.

**References:** Not available.

**Other Special Considerations:** Not available.

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The information contained herein is based on data considered to be accurate based on the material as packaged. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It is the user's obligation to determine the conditions of safe use of the product. While this MSDS is based on technical data judged to be reliable, PHARMCO-AAPER assumes not responsibility for the completeness or accuracy of the information contained herein.