



# Polysorbate 20

Safety Data Sheet

## SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Name:** Polysorbate 20  
**Product Code:** 515-492X
- 1.2 Intended Use:** Compound used in customer substance/mixture/product.
- 1.3 Supplier:** Majestic Mountain Sage Inc  
2490 S 1350 W  
Nibley, 84321 - United States of America  
T 435.755.0863 - F 435.755.2108  
www.TheSage.com
- 1.4 Emergency Telephone Number**  
No additional information available

## SECTION 2: Hazards Identification

### 2.1 GHS Classification

Not a hazardous substance or mixture.

### 2.2 Label Elements

None

#### Hazard Statements

NC Not a hazardous substance or mixture

#### Precautionary Statements

NC Not a hazardous substance or mixture

## SECTION 3: Composition/Information on Ingredients

### 3.1 Components

Component Name	CAS #	Component %	OSHA PEL	ACGIH TLV
Polysorbate 20	9005-64-5	>97	N/A	N/A
Water	7732-18-5	<3	Not applicable	Not applicable
1,4-Dioxane	123-91-1	<0.01	25 ppm	20 ppm
Ethylene oxide	75-21-8	<0.001	1 ppm	1 ppm

## SECTION 4: First Aid Measures

### 4.1 Description of First Aid Measures

- Contact With Eyes:** Immediately flush with plenty of running water for at least 15 minutes, keeping eyelids open. Remove contact lenses if present and easy to do so. Seek prompt medical attention if irritation persists.
- Skin Contact:** Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower. Seek prompt medical attention if irritation persists.
- Inhalation:** Seek prompt medical attention. Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
- Ingestion:** Do not induce vomiting. Vomiting should only be influenced by medical personnel. If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs. Never give anything by mouth to an unconscious or convulsing person. Seek prompt medical attention if irritation persists.

### 4.2 Most Important Symptoms/Effects, Acute and Delayed

No information available

### 4.3 Indication of Immediate Medical Attention and Special Treatment Needed

No information available

## SECTION 5: Firefighting Measures

### 5.1 Extinguishing Media

**Suitable:** Alcohol resistant foam, water spray, carbon dioxide (CO<sub>2</sub>), dry chemical powder.

**Unsuitable:** Water jet.

**Procedure:** Cool the intact fire-exposed containers with water spray and remove them.

### 5.2 Special Hazards Arising from the Substance or Mixture

No information available

### 5.3 Unusual Fire and Explosion Hazards

No information available

### 5.4 Special Protective Equipment for Firefighters

Self-contained breathing apparatus and protective clothing are required.

## SECTION 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Remove non-essential personnel. Keep heat and or ignition sources away. Use personal protection equipment in order to avoid contact with spilled product.

### 6.2 Environmental Precautions

Prevent product from entering into soil and waterways. Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.

### 6.3 Methods and Materials for Containment and Cleaning Up

Stop if possible. Contain and dike spilled product with earth or sand. Eliminate ignition or heat sources. Transfer to proper container. Collect remnants with an appropriate absorbent material. Wash the contaminated surface with water, which should be collected for disposal.

## SECTION 7: Handling and Storage

### 7.1 Precautions for Safe Handling

Use in a well-ventilated area. Avoid inhalation and contact with eyes, skin or clothing through proper protection. If accidental contact occurs, exposed area should be washed immediately. Emergency eye wash stations and showers shall be located in accessible locations. Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse.

### 7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames. Ensure that the storage location has adequate moisture, pressure and temperature. Keep containers tightly closed when not in use. The product can be stored, in a liquid state, at temperature between 68° and 122°F, which, as recommended, is maintained at inert gas atmosphere. Recommended packaging: Stainless steel, Coated carbon steel with: Vinyl ester resin, Polyester resin reinforced with fiber glass, Polyethylene, Polypropylene.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters

Component Name	CAS #	OSHA PEL	ACGIH TLV
Polysorbate 20	9005-64-5	N/A	N/A
Water	7732-18-5	Not applicable	Not applicable
1,4-Dioxane	123-91-1	25 ppm	20 ppm
Ethylene oxide	75-21-8	1 ppm	1 ppm

**Engineering Controls:** In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhauster).

**Monitoring:** Information not available.

### 8.2 Personal Protective Equipment

**Eye Protection:** Side shields or wide vision safety goggles.

**Skin Protection:** Gloves made of: PCV (Polyvinyl chloride). PVC apron. It is recommended to adopt safety boots/shoes.

**Respiratory Protection:** In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self container breathing apparatus. It is recommended to wear face mask with organic vapors cartridge in case of exposure to vapors/aerosols.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

<b>Appearance:</b>	Yellowish viscous liquid
<b>Odor:</b>	Mild, soapy odor
<b>pH @ 25°C:</b>	5.0 - 7.0 (5% w/w, 25°C)
<b>Melting/Freezing Point:</b>	No data available
<b>Flashpoint:</b>	> 150°C (302°F) Open cup (OC)
<b>Specific Gravity:</b>	No data available
<b>Solubility:</b>	Soluble in water (20°C for 1 hour / 0.5% concentration)
<b>Auto-Ignition Temperature:</b>	No data available
<b>Decomposition:</b>	No data available
<b>VOC Content:</b>	No data available
<b>Odor Threshold:</b>	No data available
<b>Boiling Range:</b>	> 149°C (300.2°F) (1.013 hPa)
<b>Evaporation Rate:</b>	No data available
<b>Flammable Limits - Upper:</b>	Not applicable
<b>Flammable Limits - Lower:</b>	Not applicable
<b>Vapor Pressure:</b>	< 1.3 hPa (25°C)
<b>Vapor Density (Air=1):</b>	No data available
<b>Viscosity:</b>	c.a. 400 mPa.s (25°C)

## SECTION 10: Stability and Reactivity

<b>10.1 Reactivity</b>	No information available.
<b>10.2 Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>10.3 Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.
<b>10.4 Conditions to Avoid</b>	High temperatures, ignition sources and prolonged exposure to the air.
<b>10.5 Incompatible Materials</b>	Avoid contact with: strong oxidizing agents, compounds with high affinity for hydroxyl groups.
<b>10.6 Hazardous Decomposition Products</b>	In case of combustion it may generate carbon monoxide, and/or CO <sub>2</sub> .

## SECTION 11: Toxicological Information

### 11.1 Toxicity Information

<b>Likely Route of Exposure:</b>	Skin contact, ingestion, eye contact, inhalation.
<b>Inhalation:</b>	Due to the low vapor pressure, no significant health hazard from inhalation is likely to occur at normal room temperatures. Mist or vapors produced from elevated temperatures may cause irritation of the mucous membranes and in high levels may cause a chemical pneumonitis.
<b>Eye Contact:</b>	May cause minimal to moderate conjunctival irritation.
<b>Skin Contact:</b>	Prolonged or repeated exposure may cause irritation of the skin by removing natural oils, causing redness and papular dermatitis.
<b>Ingestion:</b>	High levels may cause diarrhea and other effects secondary to laxation. May cause intestinal obstruction.

**Acute Toxicity Value:** See Health Hazards below.

**Chronic (Long Term) Effects:** No data available

**Toxicity:**

Component Name	LD50	LC50
Polysorbate 20	Oral LD50, rat: 37000 mg/kg Dermal LD50, guinea pig: >3000	Inhl LC50, rat: > 5.1 mg/L
Water	Oral (rat): 90000 mg/kg	No data available
1,4-Dioxane	Oral, rat: 4200 mg/kg Dermal, Rabbit: 7858 mg/kg	Inhalation, Rat, 2h: 46000 mg/m <sup>3</sup>
Ethylene oxide	Oral, rat: >5000 mg/kg Dermal, rabbit: >5000 mg/kg	Not established

**Reproductive Effects:** Maternal LOAEL (rats): 5000 mg/kg/day

**Teratogenicity:** Developmental NOAEL (rats): > 5000 mg/kg/day

**Mutagenicity:** Ames test (mammalian chromosomal aberration):  
Negative in vitro

**Embryotoxicity:** No information available

**Sensitization:** Not a skin sensitizer.

**Synergistic Products:** No information available

**Carcinogenicity:** Oral studies showed no evidence for carcinogenicity by this route.

**SECTION 12: Ecological Information**

**12.1 Ecotoxicity**

The aquatic toxicity is not known. Based on similar products, it is not considered toxic to aquatic life.

**12.2 Persistence and Degradability**

Readily biodegradable. 62.5% after 28 days.

**12.3 Bioaccumulative Potential**

It is not expected to bioaccumulate in the environment. BCF = 7.07 (QSAR).

## 12.4 Mobility in Soil

It is expected to have high mobility in soil. Log Koc = 1.7308 (QSAR).

### SECTION 13: Disposal Considerations

#### 13.1 Disposal Methods

The preferred options for disposal include reuse, recycling, co-processing, finding a use for a byproduct, incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions. The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.

### SECTION 14: Transport Information

#### 14.1 DOT Shipping Information

Proper Shipping Name: Not classified  
Contains: Not classified  
Hazard Class and Label: Not classified  
Identification Number: Not classified  
Packaging Group: Not classified  
Other Shipping Info: Not regulated

### SECTION 15: Regulatory Information

#### 15.1 U.S. Federal Regulations

##### TSCA Status:

The components of this product are listed on the TSCA Inventory.

##### SARA Title III Section 302/304 Extremely Hazardous Substance:

Component Name	CAS #	% by wt.	RQ (lbs.)	TPQ (lbs.)
Ethylene oxide	75-21-8	<0.001	N/A	1,000



**SARA Title III Section 311/312 Hazard Categorization:**

Acute	Chronic	Fire	Pressure	Reactive
N/A	N/A	N/A	N/A	N/A

**SARA Title III Section 313 Supplier Information:**

Component Name	CAS #	% by wt.
1,4-Dioxane	123-91-1	<0.01
Ethylene oxide	75-21-8	<0.001

**CERCLA Section 102(a) Hazardous Substance:**

Component Name	CAS #	% by wt.	RQ (lbs.)
1,4-Dioxane	123-91-1	<0.01	100
Ethylene oxide	75-21-8	<0.001	10

**15.2 U.S. State Regulations****California Proposition 65:**

1,4-Dioxane (123-91-1): This product does contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Ethylene oxide (75-21-8): This product does contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**New Jersey Hazardous Substance List:**

1,4-Dioxane: Substance# 0789 (Special Health Hazard Code: CA - Carcinogen; F3 - Flammable 3<sup>rd</sup> Degree).

Ethylene oxide: Substance# 0882 (Special Health Hazard Code: CA - Carcinogen; MU - Mutagen; TE - Teratogen; F4 - Flammable 4<sup>th</sup> degree; R3 - Reactive 3<sup>rd</sup> degree).

**Pennsylvania Hazardous Substance List:**

1,4-Dioxane (CAS 123-91-1) and Ethylene oxide (CAS 75-21-8): Listed also as an environmental hazard and as a special hazardous substance. 1,2-ethanediol (CAS 107-21-1): Listed as an environmental hazard. Ethanol, 2,2-oxybis- (CAS 111-46-6): Listed.

**15.3 International Inventories**

U.S. & Puerto Rico - Toxic Substances Control Act (TSCA) Inventory: Yes  
 Canada - Domestic Substances List (DSL): Yes

Canada - Non-Domestic Substances List (NDSL): No  
 Europe - European Inventory of Existing Commercial Chemical Substances (EINECS): No  
 Europe - European List of Notified Chemical Substances (ELINCS): No  
 Australia - Australian Inventory of Chemical Substances (AICS): Yes  
 Philippines - Philippine Inventory of Chemicals and Chemical Substances (PICCS): Yes  
 Japan - Inventory of Existing and New Chemical Substances (ENCS): Yes  
 Korea - Existing Chemicals List (ECL): Yes  
 China - Inventory of Existing Chemical Substances in China (IECSC): Yes  
 New Zealand - New Zealand Inventory: Yes

\* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing countries.

<b>SECTION 16: Other Information</b>
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### 16.1 HMIS Rating

Health	Flammability	Reactivity
1	1	0

### 16.2 Additional Information

Resolution 420/2004 - Transport Ministry. IMDG Code - 2012 Edition - IMO (International Maritime Organization). Dangerous Goods Regulations - 56<sup>th</sup> Edition - IATA (International Air Transport Association). Dangerous Goods by Road (ADR) - Available from January 1<sup>st</sup>, 2011 - UNECE (United Nations Economic Commission for Europe). U.S.A. Department of Transportation - DOT - 49 CFR 172.101.

#### Notes:

This safety data sheet is based on the properties of the material known at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment holds no responsibility. This document is not intended for quality assurance purposes.