



SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Polyoxyethylenesorbitan (Tween® 20)
PRODUCT NUMBER: P720
COMPANY INFO: *PhytoTechnology Laboratories®*
PO Box 12205, Shawnee, KS 66282-2205
Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442
www.phytotechlab.com

EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only
1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories®* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Not a hazardous substance or mixture.

GHS Label elements, including hazard and precautionary statements:

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS - None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Tween® 20; Polyoxyethylenesorbitan Monolaurate
CAS No: 9005-64-5
Formula: $C_{58}H_{114}O_{26}$
Molecular Weight: 1227.5 g/mol

Ingredient	CAS Number	Percent	Hazardous
Polyoxyethylenesorbitan Monolaurate	9005-64-5	>97 %	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

Skin Contact Irritating. May cause reddening, itching or inflammation. Wash area thoroughly with soap and water. Remove and wash contaminated clothing. **Get medical attention if irritation persists.**

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

Special Protective Equipment and Precaution for Firefighters: In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

Hazardous Combustion Products: May emit toxic fumes under fire conditions.

Toxic Gases Produced: Carbon dioxide and carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Method of Containment and Cleanup: Wear suitable protective clothing. Clean-up personnel should wear proper protective equipment and clothing. Contain spilled material and do not let product enter drains. Soak up with inert absorbent material and place in a suitable, closed container for disposal in accordance with all local, state/provincial, and national requirements. Ventilate the area if necessary.

7. HANDLING AND STORAGE

Precaution for Safe Handling: Avoid contact with skin and eyes. Avoid incompatible substances. Wash thoroughly after use.

Conditions for Safe Storage: Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.

Recommended Storage Temperature: Room Temperature

Incompatibilities: Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): No data available

Threshold Limit Values (TLVs): No data available

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

 Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

 Skin Protection: Protective gloves

 Body Protection: Lab coat

 Respiratory Protection: Respiratory protection is not required. Use N95 (US) or type P1 (EN 143) dust mask where dust level is nuisance. A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pale yellow to amber viscous liquid	
pH (Neat):	7.8 – 9.3	
Solubility:	Miscible with Water	
Melting Range:	No data available	
Vapor Density:	No data available	
Vapor Pressure:	<1.33 hPA (<1.00 mmHg)	
Specific Gravity:	No data available	
Odor:	May have slight odor	
Odor Threshold:	No data available	
Viscosity:	No data available	
Relative Density:	1.095 g/mL at 25 °C (77 °F)	
Evaporation Rate:	No data available	
Initial Boiling Point and Boiling Range:	100 °C (212 °F)	
Flammability (solid, gas):	No data available	
Partition coefficient: n-octanol/water):	No data available	
Auto-ignition Temperature:	No data available	
Decomposition Temperature:	No data available	
Flash Point (Closed Cup):	>110 °C (>230 °F)	
Flammable Limits:	Upper (%) – No data available	Lower (%) – No data available

10. STABILITY AND REACTIVITY

Reactivity:	No data available	
Chemical Stability:	Stable under normal conditions of use – Material may be hygroscopic	
Possibility of Hazard Reactions:	Will not occur	
Conditions to Avoid:	Moist air	
Incompatibles Materials:	Strong oxidizing agents	
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide	

11. TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	40,554
	LD ₅₀ (IV-Rat)(mg/Kg):	770
	LD ₅₀ (Oral-Mouse)(mg/Kg):	>33,000
Carcinogenicity:	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, nausea, vomiting, headache, possible reproductive effects, kidney or liver impairment, blood effects, weight loss or gain	

Specific Target Organ Toxicity: Single Exposure: No data available
Repeated Exposure: No data available
Target Organs: Liver, kidney, blood, gastrointestinal system
Medical Conditions Aggravated By Exposure: None identified
Routes of Entry: Ingestion, skin and eye contact
NIOSH/RTECS NO: TR7400000

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxicity to Fish: LC50 – 350 mg/L – 24 hrs
Persistence and Degradability: No data available
Bioaccumulative Potential: No data available
Mobility in Soil: No data available
Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATION

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number: No data available

14. TRANSPORT INFORMATION

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)
Hazard Class: N/A
UN/NA: N/A
Labels: N/A

15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No
Section 313 Ingredients: No
Section 304 (EHS/CERCLA) Ingredients: No
Section 311/312 Hazard: No SARA Hazards

Massachusetts Right to Know Components: No components are subject to the Massachusetts Right to Know Act.
 Pennsylvania Right to Know Components: CAS No.: 9005-64-5 Tween 20
 New Jersey Right to Know Components: CAS No.: 9005-64-5 Tween 20
 California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	0		0	0
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	0	0	0	

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