

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : **TWEEN® 20**

Product Number : 93773  
Brand : Sigma

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Polyethylene glycol sorbitan monolaurate

Formula : C58H114O26

CAS-No.	EC-No.	Index-No.	Concentration [%]
<b>Tween 20</b>			
9005-64-5	500-018-3	-	-

### 3. HAZARDS IDENTIFICATION

**Emergency Overview**  
**OSHA Hazards**  
No OSHA Hazards

**HMIS Classification**  
**Health Hazard:** 0  
**Flammability:** 1  
**Physical hazards:** 0

**NFPA Rating**  
**Health Hazard:** 0  
**Fire :** 1  
**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.  
**Ingestion** May be harmful if swallowed.

#### 4. FIRST AID MEASURES

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

#### 5. FIRE-FIGHTING MEASURES

**Flammable properties**

Flash point 110 °C (230 °F) - closed cup

Ignition temperature no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**

Avoid breathing vapors, mist or gas.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Keep in suitable, closed containers for disposal.

#### 7. HANDLING AND STORAGE

**Handling**

Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

For prolonged or repeated contact use protective gloves.

**Eye protection**

Safety glasses

**Hygiene measures**

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form liquid  
Colour no data available

### Safety data

pH  
Melting point no data available  
Boiling point 100 °C (212 °F)  
Flash point 110 °C (230 °F) - closed cup  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Vapour pressure < 1.33 hPa (< 1.00 mmHg)  
Density 1.1050 g/cm<sup>3</sup>  
0.9850 g/cm<sup>3</sup>  
Water solubility soluble

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

**Hazardous decomposition products formed under fire conditions.**

Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - rat - 40,554 mg/kg

### Irritation and corrosion

Skin - Human - Mild skin irritation - 3 d

### Sensitization

Remarks: no data available

### Chronic exposure

no data available

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

Biodegradability      Remarks: no data available

### Ecotoxicity effects

Toxicity to fish      LC50 - other fish - 350 mg/l - 24 h

### Further information on ecology

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations.

### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

## 15. REGULATORY INFORMATION

### OSHA Hazards

No OSHA Hazards

### TSCA Status

On TSCA Inventory

### DSL Status

All components of this product are on the Canadian DSL list.

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

No SARA Hazards

### Massachusetts Right To Know Components

No Components Listed

### Pennsylvania Right To Know Components

Tween 20

CAS-No.  
9005-64-5

Revision Date

### New Jersey Right To Know Components

Tween 20

CAS-No.  
9005-64-5

Revision Date

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

**16. OTHER INFORMATION****Further information**

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