MATERIAL SAFETY DATA SHEET



TWEEN 20

SECTION 1: PRODUCT IDENTIFICATION

Product Name: TWEEN 20 Product Code: 4156 CAS#: 9005-64-5 Synonym: Polyoxyethylenesorbitan monolaurate Chemical Name: Not available. Chemical Formula: $C_{58}H_{113}O_{26}$ Formula Weight: 1226.5

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition: Name: TWEEN 20 Toxicological Data on Ingredients: Not available

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture: Classification according to Regulation (EC) No 1272/2008 Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. Potential Acute Health Effects: Not available. Potential Chronic Health Effects: Not available Mutagenic Effects: Not available. Teratogenic Effects: Not available. Developmental Toxicity: Not available. Specific target organ toxicity - Not available.

SECTION 4: FIRST AID MEASURES

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. Get medical attention.

Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.

Serious 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.

Serious 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.

Serious Ingestion: Not available.

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder Special hazards arising from the substance or mixture



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Carbon oxides

Combustible.

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. **Advice for firefighters** Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by Keeping a safe distance or by wearing suitable protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. **Environmental precautions**

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Storage conditions: Tightly closed. Storage class: Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Respiratory protection: Respiratory protection is not required. If protection from nuisance levels of dusts are desired, use type N95 or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Physical state and appearance | : | Yellowish color viscous Liquid |
|-------------------------------|---|--------------------------------|
| Odor | : | Not available |
| Color | : | Light Yellow |
| Molecular Weight | : | Not available |
| рН | : | Not available |
| Boiling Point | : | Not available |
| Melting Point | : | Not available |
| Critical Temperature | : | Not available |
| Specific Gravity | : | Not available |
| Vapor Pressure | : | Not available |
| Vapor Density | : | Not available |
| Volatility | : | Not available |
| Odor Threshold | : | Not available |





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| Water/Oil Dist. Coeff. | : | Not available |
|------------------------|---|---------------|
| Ionicity (in Water) | : | Not available |
| Dispersion Properties | : | Not available |
| Solubility | : | Not available |

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).
Instability Temperature: Not available
Conditions of Instability: Not available
Incompatibility with various substances: Strong oxidizing agents
Special Remarks on Corrosivity: Non-corrosive.
Special Remarks on Reactivity: Not available
Possibility of hazardous reactions: Violent reactions possible with:
Oxidizing agents Bases
Hazardous decomposition products: In the event of fire.

SECTION 11: TOXICOLOGICAL INFORMATION.

Acute Toxicity: LD50 Oral - Rat - 38.900 mg/kg LC50 Inhalation - Rat - male and female - 4 h - > 5,1 mg/l Inhalation: Not available Dermal: Not available Routes of Entry: Not available Toxicity to Animals: Not available Chronic Effects on Humans: Not available Other Toxic Effects on Humans: Not available. Special Remarks on Toxicity to Animals: Not available Special Remarks on other Toxic Effects on Humans: Not available Reproductive toxicity: Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Toxicity to fishstatic test LL50 - Danio rerio (zebra fish) - > 100 mg/l - 96 hToxicity to daphniaEC50 - Daphnia - > 10 mg/l - 48 hand other aquaticinvertebratesToxicity to bacteriamicrotox test EC50 - Bacteria - 146 - 774 mg/l - 5 minBOD and COD: Not availablemicrotox test EC50 - Bacteria - 146 - 774 mg/l - 5 minProducts of Biodegradation:Not availableToxicity of the Products of Biodegradation:Biodegradation:Biodegradability aerobic - Exposure time 28 dResult: > 60 % - Readily biodegradable.Special Remarks on the Products of Biodegradation:Not Available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.



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SECTION 14: TRANSPORT INFORMATION

| UN number: | | | |
|------------------------------|------------------------|----|----------|
| ADR/RID: | IMDG: | | IATA: |
| UN proper shipping name | | | |
| ADR/RID: Not dangerous goo | ods | | |
| IMDG: Not dangerous goods | | | |
| IATA: Not dangerous goods | | | |
| Transport hazard class (es): | | | |
| ADR/RID: | IMDG: | | IATA: |
| Packaging group: | | | |
| ADR/RID: | IMDG: | | IATA: |
| Environmental hazards: | | | |
| ADR/RID: No | IMDG Marine pollutant: | No | IATA: No |

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. Chemical Safety Assessment For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements: Not available. **Other Special Considerations:** Not available

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.