

# Material safety data sheet

## *Tween-20*

### 1. Identification of the product (substance or mixture) and supplier/company

#### Product identifiers

Product: Tween®-20  
Catalogue no.: CT371  
Brand: U-CyTech biosciences

#### Relevant identified uses of the product and uses advised against

Identified uses: Laboratory reagent. To be used in U-CyTech ELISA and ELISPOT systems.  
For R&D use only, not for food, drug, household or other uses.

#### Details of the supplier of the material safety data sheet

Supplier: U-CyTech biosciences  
Yalelaan 48  
3584 CM Utrecht  
The Netherlands  
Phone: +31 30 253 5960  
E-mail: info@ucytech.com

### 2. Hazard identification

#### Classification of the product (substance or mixture)

The product is not classified as hazardous according to Regulation (EC) no. 1272/2008 and to Directive 67/548/EC and its amendments.

#### Label elements

Pictogram: none  
Signal word: none  
Hazard statement(s): none  
Precaution statement(s): none

**Other hazards - none**

### 3. Composition/information on ingredients

Product name: Tween®-20

Formula: C<sub>58</sub>H<sub>114</sub>O<sub>26</sub>

Synonyms: Polyoxyethylenesorbitan monolaurate, polyethylene glycol sorbitan monolaurate

Ingredients:

Cas no.	EC no.	Index no.	Classification	Concentration
<b>Tween-20</b>				
9005-64-5	500-018-3	-	-	-

Tween is a registered trade mark of Uniqema, a business unit of ICI Americas Inc.

#### 4. First aid measures

##### Description of first aid measures

- General advice: Consult physician. Show this MSDS to the doctor in attendance.
- After contact with skin: Wash contaminated area with soap and water. Remove contaminated clothing and shoes. Consult a physician.
- After swallowing: If the person is conscious, wash out mouth with water. Consult a physician.
- After contact with eyes: Rinse thoroughly with plenty of water for at least 15 minutes. Assure adequate flushing by separating the eyelids. Consult a physician.
- After inhalation: Provide fresh air. If breathing becomes difficult, consult a physician.

##### Most important symptoms and effects, both acute and delayed

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

##### Indication of any immediate medical attention and special treatment needed

No data available.

#### 5. Fire-fighting measures

- Extinguishing media: Water spray, carbon dioxide, dry chemical powder or alcohol-resistant foam.
- Special hazards /risks: Vapors heavier than air.  
Forms explosive mixtures with air on intense heating.  
Development of hazardous combustion gases or vapors possible in the event of fire. In case of fire carbon oxides may develop.
- Advice for fire fighters: Wear self-contained breathing apparatus and protective clothing for fire fighting if necessary.

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## 6. Accidental release measures

**Personal precautions:** Use personal protective equipment to avoid exposure. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Follow general safety rules for laboratories. Evacuate personnel to safe areas in case of an emergency.

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

**Clean-up methods:** Soak up with inert absorbent material and keep in suitable, closed containers for disposal (section 13).

## 7. Handling and storage

**Safe handling:** Only for laboratory use. Use personal protective equipment to avoid (prolonged or repeated) exposure. Ensure adequate ventilation. Follow general safety rules for laboratories.

**Safe storage:** Store in a cool, dry and well-ventilated place. Keep container tightly closed.

## 8. Exposure controls/personal protection

Contains no substances with occupational exposure limit values.

### Appropriate engineering controls and hygiene measures

Facilities storing or utilizing this product should be equipped with an eyewash facility, a safety shower and mechanical exhaust. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

### Personal protective equipment

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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. Dispose of

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contaminated gloves after use in accordance with applicable laws and good laboratory practices.  
 Wash and dry hands.

Eye protection

The selected safety glasses have to have side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection

The selected clothing has to be impervious.

**9. Physical and chemical properties**

Physical state and appearance:	liquid to viscous	Color:	yellowish
Odor:	no data available	pH (at 20°C):	7
Melting/freezing point:	no data available	Boiling/condensation point:	100°C
Flash point:	> 110°C - closed up	Auto ignition temperature:	no data available
Flammability limits:	no data available	Density (at 25°C):	1.95 g/ml
Solubility:	soluble in water	Vapor pressure	< 1.33 hPa

**10. Stability and reactivity**

Chemical stability: Stable under recommended storage conditions.  
 Conditions to avoid: No data available.  
 Materials to avoid: Strong oxidizing agents.  
 Hazardous reactions/decomposition products: Hazardous decomposition products formed under fire conditions: carbon oxides.

**11. Toxicological information**

Acute toxicity: LD<sub>50</sub> (oral, rat): 40.554 mg/kg.  
 Irritation and corrosion (skin and eyes): Mild skin irritation (human, 3 d)  
 Sensitization (skin and respiratory): No data available.  
 Germ cell mutagenicity: No data available.  
 Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
 Reproductive toxicity: No data available.  
 Specific target organ toxicity (single and repeated): No data available.  
 Aspiration hazard: No data available.

Signs and symptoms of exposure:  
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**Potential health effects:**

Inhalation: May be harmful if inhaled and may cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin and may cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

**Additional information:**

RTECS: TR7400000.

## 12. Ecological information

Toxicity: LC<sub>50</sub> (fish, 24h): 350 mg/l.

Persistence and degradability: No data available.

Bio accumulative potential: No data available.

Mobility in soil: No data available.

Results of PBT and vPvB assessment: No data available.

Other adverse effects: No data available.

## 13. Disposal considerations

Product: The generation of waste should be avoided or minimized wherever possible.  
Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.  
Observe all federal, state and local environmental regulations.

Packaging: Dispose of as unused product.

## 14. Transport information

This product is not dangerous for road (ARD), rail (RID), inland waterways (ADNR), sea (IMDG) and air (ICAO/IATA) transport. UN number is not available.

## 15. Regulatory information

This product is not classified as dangerous according to EU legislation.

## 16. Other information

**Further information**

The information provided with this document is furnished in good faith and without warranty of any kind. Personnel handling this product must consider these data only as supplemental to other information gathered by them and must make independent determinations of this suitability and completeness of information from all sources to assure proper use and disposal of the materials

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