Safety data sheet

ChemiPURE Tween-20, Reagent Grade

Product name ChemiPURE Tween-20, Reagent Grade	Catalog no. T2100, T2500
Synonyms Tween 20; Polysorbate 20; Polyoxyethylene (20) sorbitan monolaurate	SDS revision -
CAS no. 9005-64-5	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE Tween-20, Reagent Grade
Product code	T2100 (100 mL); T2500 (500 mL)
CAS number	9005-64-5
EC number	500-018-3
Recommended use	For research use only. Nonionic surfactant for wash buffers, Western blotting, ELISA, immunohistochemistry and biochemical assays.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Not classified as hazardous under Regulation (EC) No. 1272/2008 (CLP).
Label elements	No hazardous CLP label elements required.
Symbols / pictograms	None
Signal word	None
Hazard statements	None
Precautionary statements - Prevention	Use good laboratory hygiene. Avoid splashing, ingestion and aerosol formation. Wear protective eyewear and suitable gloves.
Precautionary statements - Response	Rinse affected skin or eyes with plenty of water. Move to fresh air after mist inhalation. Seek medical advice if symptoms persist.
Other hazards	Spilled liquid may make floors slippery. Splashes or mists may cause transient eye, skin or respiratory irritation.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE Tween-20, Reagent Grade
Synonyms	Tween 20; Polysorbate 20; Polyoxyethylene (20) sorbitan monolaurate
Concentration	Reagent grade. Quantitative assay: No data available.
Formula	C58H114O26 (representative average composition)
Molecular weight	Approx. 1,228 g/mol (average)
Mixture statement	Polysorbate 20, CAS 9005-64-5 (EC 500-018-3), is a polydisperse ethoxylated nonionic surfactant. Exact assay and impurity levels: No data available.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Immediately flush eyes with plenty of water, including beneath eyelids, for at least 15 minutes. Remove contact lenses if easy to do. Seek medical advice if irritation persists.
Skin contact	Wash skin with soap and plenty of water. Remove contaminated clothing. Obtain medical advice if irritation develops.
Inhalation	Move to fresh air after mist or aerosol exposure. Seek medical attention if coughing or breathing discomfort persists.
Ingestion	Rinse mouth. Do not induce vomiting. Seek medical advice if feeling unwell, especially after a large exposure.
Self-protection of first aider	Use protective gloves and eye protection. Avoid contact with the spill and breathing aerosols.
Most important symptoms / effects	Direct splashes may irritate eyes or skin. Large oral exposure may cause gastrointestinal upset; mists may irritate airways.
Notes to physicians	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide, as appropriate for the surrounding fire.
Unsuitable extinguishing media	Avoid high-pressure water jets capable of spreading spilled liquid or fire.
Special hazards arising from the substance or mixture	Not classified as a flammable liquid. Thermal decomposition or combustion may release carbon monoxide, carbon dioxide and irritating vapors.
Explosion data	No explosive properties identified. Flash point reported near 150 °C for comparable material; method and grade may vary.
Advice for firefighters	Wear self-contained breathing apparatus and complete protective equipment in a fire. Prevent contaminated runoff entering drains.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Wear gloves and eye protection; ventilate the area. Beware of slippery surfaces and avoid generating aerosols.
Environmental precautions	Do not allow uncontrolled large releases into drains, surface waters or soil.
Methods and materials for containment and cleaning up	Contain spill and absorb with sand, vermiculite or other inert material. Transfer to suitable closed, labelled waste containers. Wash residue from surfaces.
Reference to other sections	See Sections 8 and 13 for protective equipment and waste handling.

07 HANDLING AND STORAGE

Precautions for safe handling	Use good laboratory hygiene. Avoid contact with eyes, unnecessary splashes and mist formation. Do not eat, drink or smoke while handling.
Conditions for safe storage	Store tightly closed at 15–25 °C. Protect from direct light, contamination, strong oxidizers and repeated temperature fluctuations.
Container labeling	Keep in the original or a correctly labelled, tightly closed compatible container.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No substance-specific occupational exposure limits have been established for polysorbate 20. Minimize mist formation and follow relevant workplace exposure-control practices.

8.2 Exposure controls

Engineering measures	General laboratory ventilation is normally adequate. Provide accessible eyewash facilities; use local exhaust for aerosol-generating operations.
Hygiene measures	Wash hands after handling. Do not eat, drink or smoke in work areas. Remove contaminated clothing.
Eye / face protection	Wear safety glasses with side protection or goggles when splashes are possible (EN 166).
Hand protection	Use appropriate protective gloves (e.g., nitrile), selected for expected duration and contact.
Skin and body protection	Wear a laboratory coat, long trousers and closed footwear; clean spills promptly.
Respiratory protection	Not normally required in well-ventilated work. If aerosol levels are significant, select suitable respiratory protection following a risk assessment.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colorless to light yellow, viscous liquid
Odor	Odorless to faint characteristic odor
Odor threshold	No data available
pH	Approx. 6 (10% aqueous solution)
Melting point / freezing point	No data available
Initial boiling point and boiling range	>100 °C (comparable material)
Flash point	Approx. 150 °C (grade-dependent)
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable (liquid); not classified as flammable
Upper / lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	Approximately 1.10 g/cm³ at 25 °C
Solubility(ies)	Soluble in water
Partition coefficient: n-octanol / water	No product-specific value available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Approx. 400 mPa·s at 25 °C
Explosive properties	Not classified as explosive
Oxidizing properties	Not classified as oxidizing

10 STABILITY AND REACTIVITY

Reactivity	No hazardous reactivity during normal use; avoid strong oxidizers.
Chemical stability	Stable at 15–25 °C in tightly closed containers.
Possibility of hazardous reactions	No hazardous polymerization expected during normal use.
Conditions to avoid	Excessive heat, direct sunlight and incompatible chemicals.
Incompatible materials	Strong oxidizers and strong acids.
Hazardous decomposition products	Carbon oxides and irritating vapors on thermal decomposition.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Not classified for acute toxicity. Oral LD50 (rat): approximately 37,000 mg/kg (published polysorbate-20 data).
Skin corrosion / irritation	Not classified for skin corrosion or irritation; prolonged contact may cause temporary discomfort in sensitive individuals.
Serious eye damage / eye irritation	Not classified for serious eye damage or irritation; splashes may cause temporary irritation.
Carcinogenicity	Not classified as carcinogenic on available data.
Reproductive toxicity	No data available for product-specific reproductive toxicity; no CLP classification assigned.
STOT - SE	Not classified for specific target organ toxicity after single exposure.
STOT - RE	Not classified for specific target organ toxicity after repeated exposure.
Aspiration hazard	No classification assigned; product-specific aspiration data are unavailable.

11.2 Potential health effects

Ingestion: Large quantities may cause gastrointestinal discomfort.
Inhalation: Aerosol or mist may cause temporary airway irritation.
Skin: Prolonged contact may cause mild irritation in sensitive individuals.
Eyes: Splashes may cause temporary irritation.

11.3 Additional information

The toxicological properties of the specific commercial grade have not been fully characterized.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Not classified as hazardous to the aquatic environment. Prevent large or uncontrolled discharges.
Persistence and degradability	No product-specific biodegradation result available.
Bioaccumulative potential	No product-specific bioaccumulation data available.
Mobility in soil	Water-soluble surfactant; aqueous release may facilitate transport in the environment.
Results of PBT and vPvB assessment	No product-specific PBT/vPvB assessment available.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of unused material and absorbents through an authorized chemical-waste handler in accordance with applicable requirements. Do not pour bulk product down drains.
Contaminated packaging	Empty containers completely. Dispose of unclean packaging in accordance with local regulations; do not repurpose containers.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not regulated	-	-	No
IMDG	-	Not regulated	-	-	No
IATA	-	Not regulated	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP). Polysorbate 20 (CAS 9005-64-5; EC 500-018-3) has no hazardous CLP classification assigned.
Environmental hazards	Not classified as environmentally hazardous under CLP.
Chemical safety assessment	No product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail