

Store at RT

Tris Buffered Saline with Tween® 20 (TBST-10X)

www.cellsignal.com

Support: 877-678-TECH (8324)
info@cellsignal.com

Orders: 877-616-CELL (2355)
orders@cellsignal.com

#9997

Supplied as a 10X stock.
1000 ml

rev. 06/27/14

For Research Use Only. Not For Use In Diagnostic Procedures.

Description: Tris buffered saline (TBS) solution with the detergent Tween® 20 for use as a wash buffer during western blotting. Product is shipped and stored at room temperature. 1X Formulation: 137 mM Sodium Chloride, 20 mM Tris, 0.1% Tween-20. Supplied at pH 7.6.

Direction for Use: Dilute Tris Buffered Saline with Tween 20 (TBST-10X) to a 1X solution using ddH₂O. This product supplies enough 10X material to make 10 liters of 1X solution.

Storage: Supplied as a 10X solution. Store at room temperature.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Tween® is a registered trademark of ICI Americas, Inc.

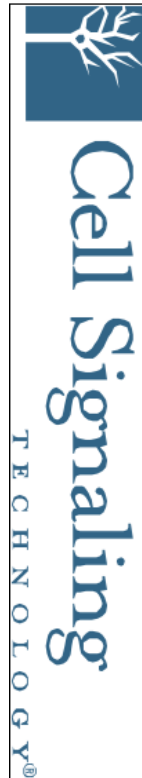
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Cell Signaling
TECHNOLOGY®

Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 191.0.1200
 Issuing Date: 2014-04-03
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 Version: 1

SECTION 1. Identification

Product Identifier
 9997
Product No. 9997
Product name This Buffered Saline with Tween ® 20 (TBST-10X)
Description For use as a wash buffer during western blotting.
Other means of identification 9997/BC; 9997P; 9997P2; 9997S

Recommended use of the chemical and restrictions on use
 This product is intended for research purposes only.
 This product is not intended for use in diagnostic procedures or therapeutics.
Identified uses This product is not intended for use in humans or animals.
Uses advised against This product is not intended for use in humans or animals.

Manufacturer, importer, supplier
 Cell Signaling Technology, Inc.
 3 Task Lane
 Danvers, MA 01923
 TEL: +1 978 867 2300
 FAX: +1 978 867 2400
Website www.cellsignal.com
Email address support@cellsignal.com
Emergency phone number 978-867-2300
Emergency telephone number In case of emergency/call CHEMTREC 1-800-424-9300

Classification
 This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 191.0.1200)

Serious eye damage/eye irritation Category 2B

GHS Label elements, including precautionary statements

Signal Word Warning
Hazard statement(s) Causes eye irritation
Precautionary Statement(s) Wash face, hands and any exposed skin thoroughly after handling. If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing if eye irritation persists. Get medical advice/attention

9997 - The Buffered Saline with Tween ® 20 (TBST-10X) Revision Date: 2014-04-03

Supplementary Hazard Information
 Hazards not otherwise classified (HNOC) None.

SECTION 3. Composition/Information on ingredients

Chemical name	Aqueous buffer solution	CAS No.	Weight %
Sorbitan monolaurate, ethoxylated		9005-64-5	0.1-1%
Tris(hydroxymethyl)aminomethane		77-86-1	1.5%
sodium chloride		7647-14-5	7-13%

SECTION 4. First-aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact Wash skin with soap and water.
Inhalation Move to fresh air.
Ingestion If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms and effects, both acute and delayed
 No information available.

Indication of any immediate medical attention and special treatment needed
 Treat symptomatically.

Advice for emergency responders
 For further assistance, contact your local Poison Control Center. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5. Fire-fighting measures

Extinguishing media
 Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
 No information available.

Explosion Data
 Sensitivity to Mechanical Impact None.
 Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

9997 - The Buffered Saline with Tween ® 20 (TBST-10X)

Revision Date: 2014-04-03

As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Ensure adequate ventilation.
Other information No information available.

Environmental precautions

See Section 12 for additional information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.
Methods for cleaning up Pick up and transfer to properly labeled containers.

SECTION 7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.
Packaging material No information available.
Incompatible products Strong oxidizing agents, Lithium alkyls, Bromine compounds.

SECTION 8. Exposure controls/personal protection

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

Eye/face protection
Skin and body protection
Respiratory protection

Eye/face protection Safety glasses with side-shields.
Skin and body protection Wear protective gloves/clothing.
Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be provided in accordance with current local regulations. Respiratory protection must be provided in accordance with current local regulations.
Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9997 - The Buffered Saline with Tween ® 20 (TBST-10X)

Revision Date: 2014-04-03

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Odor	No information available
Color	Colorless
Odor Threshold	No information available
pH	7.4
Melting point/freezing point	No information available
Initial boiling point and boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Upper flammability limit	No information available
Lower flammability limit	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Solubility	No information available
Solubility in other solvents	No information available
Partition coefficient: n-octanol/water	No information available
Autoflammability temperature	No information available
Decomposition temperature	No information available
Explosive properties	No information available
Oxidizing properties	No information available
VOC content	No information available
Viscosity	No information available
Density	No information available

SECTION 10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions None under normal processing.
Hazardous polymerization None under normal processing.

Conditions to Avoid

No information available.

Incompatible Materials

Strong oxidizing agents, Lithium alkyls, Bromine compounds.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors: Carbon oxides, Hydrogen chloride, Sodium oxides.

9997 - The Buffered Saline with Tween ® 20 (TBST-10X)

Revision Date: 2014-04-03

SECTION 11. Toxicological Information

Information on likely routes of exposure

- Inhalation** There is no data available for this product.
- Eye contact** Contact with eyes may cause irritation.
- Skin contact** There is no data available for this product.
- Ingestion** There is no data available for this product.

Information on toxicological effects

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
tomelamol	= 5800 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Symptoms** No information available.
- Corrosivity** No information available.
- Sensitization** No information available.
- Mutagenic effects** No information available.
- Carcinogenicity** No information available.
- Reproductive toxicity** No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
- STOT - single exposure** No information available.
- STOT - repeated exposure** No information available.
- Neurological effects** No information available.
- Aspiration Hazard** No information available.

SECTION 12. Ecological Information

Ecotoxicity

Product does not present an aquatic toxicity hazard based on known or supplied information. 1-5% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
sodium chloride	-	LC50 4.747 - 7.824 mg/L (Oncorhynchus mykiss) 96 h LC50 1.2946 mg/L (Lepomis macrochirus) 96 h LC50 55.690 - 60.980 mg/L (Lepomis macrochirus) 96 h LC50 64.200 - 67.000 mg/L (Pimephales promelas) 96 h LC50 7.650 mg/L (Pimephales promelas) 96 h LC50 60.200 mg/L (Pimephales promelas) 96 h	EC50 3.400 - 5.500 mg/L (Daphnia magna) 48 h EC50 1000 mg/L (Daphnia magna) 48 h

- Persistence and degradability** Product is biodegradable. Does not bioaccumulate.
- Mobility** Will likely be mobile in the environment due to its water solubility but will likely degrade over time

Other adverse effects

9997 - The Buffered Saline with Tween ® 20 (TBST-10X)

Revision Date: 2014-04-03

No information available.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.

SECTION 15. Regulatory information

North American Inventory Listing

Component	TSCA	DSL	NDSL
Sorbitan monolaurate, ethoxylated 9005-64-5 (0.1-1%)	Listed	Listed	Not Listed
tomelamol 77-86-1 (1-5%)	Listed	Listed	Not Listed
sodium chloride 7647-14-5 (7-13%)	Listed	Listed	Not Listed

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

9997 - The Buffered Saline with Tween ® 20 (TBST-10X)

Revision Date: 2014-04-03

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (49 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

This product does not contain any substances regulated as pesticides.

SECTION 16. Other Information

Issuing Date: 2014-04-03

Revision Date: 2014-04-03

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its application. The information herein is designed only as a guidance for safe handling, use, possession, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet