



## Material Safety Data Sheet

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### SECTION 1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY / UNDERTAKING – CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**Trade Name:** 3T3/A31 Cell Lysate  
**Catalogue Number(s):** 12-305  
**Chemical Name:** A cell lysate containing detergents, tris (hydroxymethyl) aminomethane, sodium deoxycholate, orthovanadate, chloride and fluoride, ethylenediamine tetraacetic acid, and enzyme inhibitors.  
**Product use:** Western Blotting procedures.  
**Other trade names and synonyms:** None  
**Manufacturer/Distributor:** Millipore Corporation (Corporate Headquarters)      Millipore S.A.S. (European Headquarters)  
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## SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Component	EINECS or ELINCS No.	CAS No.	Content (weight percent)	Symbol letters*	R Phrases**
Ethoxylated octylphenol	Unlisted	68987-90-6	1%	Xi	R36/37/38 R41
Tris (hydroxymethyl) aminomethane hydrochloride	214-684-5	1185-53-1	0.5-1%	Xi	R36/37/38
Glycerol	200-289-5	56-81-5	5%	None	None

- This product also contains sodium dodecyl sulfate, deoxycholate, orthovanadate, chloride and fluoride, ethylenediamine tetraacetic acid, bromphenol blue, aprotinin, leupeptin, pepstatin, and phenylmethylsulfonyl fluoride, which are present in concentrations below regulatory levels as defined in European Union Directives 67/548/EEC or 1999/45/EC, and Hazard Communication Standard (29 CFR 1910.1200).

\* Symbol letters and categories of danger: **T+** = Very toxic, **T** = Toxic, **C** = Corrosive, **Xn** = Harmful, **Xi** = Irritant, **E** = Explosive, **F+** = Extremely flammable, **F** = Very flammable, **N** = Dangerous for the environment, **O** = Oxidising.

\*\* The full text of each phrase is listed in Section 16.

## SECTION 3 HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

**Appearance:** Colorless to very faintly blue liquid

**Classification:** This product is not classified according to Directive 1999/45/EC.

**Adverse human health effects:**

**Contact with Eyes:** Possible mild to moderate eye irritant, accompanied by redness, tearing and pain. Prolonged or repeated contact with mixtures containing ethoxylated octylphenol and tris base may cause permanent eye damage.

**Ingestion:** Possible gastrointestinal irritant. Ingestion may cause nausea and diarrhea.

**Inhalation (Short Term):** Possible respiratory tract and mucous membrane irritant.

**Inhalation (Long Term):** Not known.

**Skin Contact:** Possible skin irritant. Tris hydroxymethyl aminomethane may cause chronic dermatitis to occur after skin contact.

**Target Organs:** None known

**Medical conditions aggravated by exposure:** Persons with pre-existing skin conditions may be at increased risk of skin irritation from contact with this product.

**Adverse environmental effects:** No information is available.

**Adverse physiochemical effects:** None expected.

## SECTION 4 FIRST AID MEASURES

- Contact with Eyes:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. If irritation persists, seek immediate medical attention.
- Ingestion:** If swallowed, summon medical assistance, and then wash out mouth with water provided person is conscious. Do not induce vomiting unless directed to do so by a health care provider.
- Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical assistance if symptoms persist.
- Skin Contact:** In case of contact, immediately wash skin with soap and copious amounts of water. If irritation or redness occurs, seek medical attention

## SECTION 5 FIRE FIGHTING MEASURES

- Flash Ignition Temperature:** None; Not considered to be a fire hazard.
- Autoignition Temperature (ASTM D1929):** None.
- Flammability Limits:** Not applicable
- Suitable extinguishing media:** Employ extinguishing media suitable for the surrounding fire.
- Unsuitable extinguishing media:** None reported.
- Special protective equipment for firefighters:** None
- Special exposure hazards:** None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Area evacuation is not required. Eliminate unnecessary traffic in area of the spill. Wear chemically resistant boots, clothing and gloves (nitrile, neoprene) to prevent skin contact, since sodium azide may be absorbed through the skin.
- Small spills:** Clean up spills immediately. Wear appropriate protective clothing and if necessary breathing apparatus. Contain spill and absorb with sand, earth, or vermiculite. Collect residues and place in labeled plastic containers. Avoid breathing aerosols and contact with skin and eyes.
- Large spills:** In addition to Small Spill precautions, clear area of all unnecessary personnel and move upwind, if aerosol formation is possible..
- Environmental precautions:** May be discharged into sewer, or industrial waste water systems if allowed by local regulations. Otherwise, collect and dispose according to federal, state and local regulations.
- Clean up measures:** Small spills may be adsorbed on paper towels, and stored in closed containers pending final disposition. Larger spill may be absorbed in sand, sawdust or vermiculite, and stored in closed containers pending final disposition (See section 13). Wash spill area with detergent and water to remove residual contamination. This water may be disposed to the sanitary sewer.

## SECTION 7 HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with eyes and skin. Wear gloves. Do not inhale aerosols or vapors. May be harmful if swallowed. Use personal protective equipment outlined in section 8. Wash thoroughly after handling Use with adequate ventilation
<b>Storage:</b>	Store frozen at room temperature, unless directed otherwise by the product data sheet. Avoid repeated freeze/thaw cycles.

## SECTION 8 EXPOSURE CONTROL AND PERSONAL PROTECTION

	Normal Handling Conditions	Emergency Response Conditions
<b>Respiratory protection:</b>	Not normally required for normal use.	If aerosols are present - air purifying respirator with organic cartridges
<b>Ventilation:</b>	General room ventilation	If aerosols are present, provide exhaust ventilation
<b>Eye protection:</b>	Safety glasses with side shields	Chemical splash goggles.
<b>Skin protection:</b>	Nitrile gloves and laboratory coat.	Chemically resistant jacket, pants, gloves, boots and head covering

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Colorless to very faintly blue liquid
<b>Odor:</b>	None
<b>Odor Threshold:</b>	No data have been found
<b>pH:</b>	7.0 – 8.0
<b>Melting Point:</b>	-1 to -3°C
<b>Boiling Point:</b>	101 to 103°C
<b>Flash Ignition Point:</b>	None; Not considered to be a fire hazard.
<b>Explosive Properties:</b>	None
<b>Oxidizing Properties:</b>	Not considered to have oxidising properties.
<b>Vapor pressure, 20 °C:</b>	<1 mm Hg
<b>Specific Gravity (Water = 1.0):</b>	1.0 – 1.1
<b>Solubility</b>	Miscible with water
<b>Vapor Density, 20 °C:</b>	Essentially that of water
<b>Viscosity, centipoise:</b>	Not available
<b>Partition coefficient (n-octanol/water):</b>	Not available

## SECTION 10 STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Conditions to Avoid:</b>	Elevated temperature, heating to dryness.
<b>Incompatible With:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Nitrogen gas, sodium oxide fumes, oxides of carbon and nitrogen. Traces of chlorides, fluorides and vanadium oxides.
<b>Hazardous Polymerization:</b>	Will not occur

## SECTION 11 TOXICOLOGICAL INFORMATION

<b>Inhalation:</b>	May cause respiratory tract and mucous membrane irritation.
<b>Ingestion:</b>	May cause gastrointestinal tract irritation, accompanied by nausea and diarrhea.
<b>Skin Contact:</b>	May cause skin irritation. Prolonged or repeated exposure may cause chronic dermatitis.
<b>Eye Contact:</b>	May cause mild to moderate eye irritation. Prolonged or repeated contact with this product may cause eye damage.
<b>Carcinogenicity:</b>	None of the components of these products are listed as carcinogenic by ACGIH, IARC, NTP, OSHA or California proposition 65..
<b>Chronic Toxicity:</b>	Chronic exposure to this product may cause dermatitis.
<b>Toxicology Data:</b>	Toxicological information for this product as a whole does not exist; Selected data for the individual components:
Compound: <b>Tris (hydroxymethyl) aminomethane (100%)</b>	RTECS#: <b>TY2900000</b>
LD <sub>50</sub> , oral, rat:	5,900 mg/kg

## SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: - No information available.

Environmental Fate: Aquatic fate: Initially, photolysis of sodium azide will result in the formation of metallic nitrides with metals found in natural waters. These nitrides will decompose over time into nitrogen gas and free metals.

## SECTION 13 DISPOSAL INFORMATION

This product may be disposed to an industrial sewer system if allowed by local regulation; otherwise dispose in a manner consistent with national, state, and local regulations.

<b>European Union:</b>	When disposal is required, this product be considered according to the European Waste catalogue (European commission decision of 03/05/01 modifying directives 94/3/CE and 75/442/CE) as part of the following category: <b>16 10 01* aqueous liquid wastes containing dangerous substances</b>
<b>United States:</b>	This product does not meet the definition of a US Environmental Protection Agency RCRA hazardous waste. Unused product should be disposed of in a manner consistent with federal, state and local regulations.

## SECTION 14 TRANSPORTATION INFORMATION

The transportation of these products is not regulated by IMDG (sea), ADR (road), RID (rail), ICAO/IATA (air), or USDOT as a dangerous goods or hazardous material.

## SECTION 15 REGULATORY INFORMATION

<b>Australia:</b>	Hazchem Code:	None Allocated
	Poisons Schedule Number:	None Allocated
<b>California:</b>	No Significant Risk Level:	None of the chemicals in these products are known to Millipore Corporation to be listed.
<b>Canada:</b>	WHMIS:	These products have WHMIS classifications of Not Classified.
<b>European Union:</b>	Symbols:	None
	Category of danger:	None
	Risk phrases:	None
	Safety phrases:	S24/25 Avoid contact with skin and eyes.
		S26 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
		S36/37 Wear suitable protective clothing and gloves
	OECD/High Production Volume (HPV) chemicals:	None
	WEEE and RoHS:	The WEEE and RoHS Directives are not applicable to these products.
<b>Japan:</b>	Poisonous and Deleterious Substances Control Law:	Sodium azide is listed as a Poisonous Substance under the Poisonous and Deleterious Substances Control Law
<b>United States:</b>	Toxic Substances Control Act:	All of the components of this product are not listed on the EPA Toxic Substances Control Act (TSCA) Inventory.

### Occupational Exposure Limits

Component	Occupational Exposure Limits, mg/m <sup>3</sup>
Glycerol:	
ACGIH TLV	10 mg/m <sup>3</sup> TWA
US OSHA PEL	15 mg/m <sup>3</sup> TWA (total) 5 mg/m <sup>3</sup> TWA (respirable fraction)

## SECTION 16 ADDITIONAL INFORMATION

Risk phrases referred to under Section 2:

- R36/37/38 Irritating to eyes, respiratory system and skin  
R41 Risk of serious damage to eyes.

### Abbreviations Used

ACGIH	American Conference of Government Industrial Hygienists
ADR	European agreement on the international carriage of dangerous goods on road
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	United States Environmental Protection Agency
IARC	International Agency for Research in Cancer.
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	Regulations regarding the transportation of dangerous goods on ocean-going vessels issued by the International Maritime Organization.
IUCLID	International Uniform Chemical Information Database
LC <sub>50</sub>	Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population
LD <sub>50</sub>	Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.
LDLo	Lowest observed lethal dose
MSFU	Manufacture, Formulation, Supply and Use (Section 13)
NIOSH	National Institute of Occupational Safety and Health (US)
NTP	National Toxicology Program (US)
OSHA	United States Occupational Safety and Health Administration
RID	International regulations concerning the international carriage of dangerous goods by rail.
RTECS	Registry of Toxic Effects of Chemical Substances (US)
VLE	15 minute short term exposure limit (France)
WHMIS	Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

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