SAFETY DATA SHEET (SDS): According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

SECTION 1. Identification

Product identifier

Product No. 11524

Product name Lysis/Binding/Wash Buffer

Other means of identification 11524S

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.

Uses advised againstThis product is not intended for use in diagnostic procedures or therapeutics.

This product is not intended for use in humans or animals.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.

3 Trask Lane

Danvers, MA 01923 TEL: +1 978 867 2300 FAX: +1 978 867 2400 www.cellsignal.com support@cellsignal.com

Email address support@cells

Company phone number 978-867-2300

Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) identification

Classification

Website

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation

Category 2A

GHS Label elements, including precautionary statements



Signal Word Warning

Hazard statement(s)

Causes serious eye irritation

Precautionary Statement(s)

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

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

Supplementary Hazard Information

Hazards not otherwise classified (HNOC) None

SECTION 3. Composition/information on ingredients

Chemical Name	CAS No.	Weight %
Nonylphenol, ethoxylated	9016-45-9	0.1-1
glycerol	56-81-5	1-5

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. Rinse mouth. Never give

anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

No information or data specific to the product on this toxicological (health) effect is available.

Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

Advice for emergency responders

General advice For further assistance, contact your local Poison Control Center.

Protection of First-aiders 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

Protective Equipment and Precautions for Firefighters

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

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

See Section 12 for additional information.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. **Methods for containment** 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

Keep containers tightly closed in a dry, cool and well-ventilated place.

conditions

Packaging material

No information available.

Incompatible products

None known based on information supplied.

SECTION 8. Exposure controls/personal protection

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
glycerol	-	TWA: 15 mg/m³ (mist, total particulate) TWA: 5 mg/m³ (mist, respirable fraction)	-

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 Safety glasses with side-shields. Wear protective gloves/clothing. Skin and body protection

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 required for high airborne contaminant concentrations. Respiratory protection must be

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provided in accordance with current local regulations.

Do not eat, drink or smoke when using this product. Hygiene measures

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state

Appearance No information available Odor No information available

Colorless Color

No information available **Odor Threshold**

Ηд 7.2 @ 20 °C

Melting point/freezing point No information available Initial boiling point and boiling No information available

range

Flash point No information available **Evaporation rate** No information available Flammability (solid, gas) No information available No information available Upper flammability limit Lower flammability limit No information available Vapor pressure No information available Vapor density No information available No information available Relative density Solubility No information available Solubility in other solvents No information available Partition coefficient: n-octanol/waterNo information available No information available **Autoignition temperature Decomposition temperature** No information available **Explosive properties** No information available **Oxidizing properties** No information available No information available **VOC** content No information available **Viscosity 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

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

SECTION 11. Toxicological information

Information on likely routes of exposure

InhalationThere is no data available for this product.Eye contactExpected to be an irritant based on components.Skin contactThere is no data available for this product.IngestionThere 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 toxocological and physiological properties of this compound is not well defined.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nonylphenol, ethoxylated	= 1310 mg/kg (Rat)	= 1780 mg/kg (Rabbit)	-
glycerol	= 12600 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-

ATEmix (oral) 86,193.21 mg/kg **ATEmix (dermal)** 94,179.89 mg/kg

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

Symptoms No information available.

Serious eye damage/eye

irritation

Irritating to eyes.

CorrosivityNo information available.SensitizationNo information available.Mutagenic effectsNo information available.

Carcinogenicity 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.

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

No information available.

No information available.

Target Organ Effects Eyes, Respiratory system, Kidney, Skin.

Neurological effects
Aspiration Hazard
No information available.
No information available.

Endocrine Disruptor Information Nonylphenol, ethoxylated is a suspected endocrine disruptor

SECTION 12. Ecological information

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Nonylphenol, ethoxylated	-	LC50 1.0 - 9.7 mg/L (Lepomis macrochirus) 96 h	-

glycerol	-	LC50 51 - 57 mL/L (Oncorhynchus	EC50 500 mg/L (Daphnia magna)
		mykiss) 96 h	24 h

Persistence and degradabilityProduct is biodegradable.BioaccumulationDoes not bioaccumulate.MobilityNo information available

Chemical Name	Octanol-Water Partition Coefficient
glycerol	-1.76

Other adverse effects

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.

SECTOIN 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
Nonylphenol, ethoxylated 9016-45-9 (0.1-1)	Listed	Listed	Not Listed
glycerol 56-81-5 (1-5)	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 HazardYesChronic Health HazardNoFire HazardNoSudden Release of Pressure HazardNoReactive HazardNo

Clean Water Act

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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

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) (40 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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
glycerol	Listed	Listed	Listed
56-81-5			

U.S. EPA Label Information

This product does not contain any substances regulated as pesticides.

SECTION 16. Other information

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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 publication. The information given is designed only as a guidance for safe handling, use, processing, 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