
1. IDENTIFICATION

Product Name	5X Lysis Buffer
Recommended use of the chemical and restrictions on use	
Identified Uses	For Research and Development Use Only
Product Numbers	190202, 190274
Company Identification	Covaris, Inc. 14 Gill Street, Unit H Woburn, MA 01801
Customer Information Number	(781) 932-3959
Emergency Telephone Number	(800) 424-9300 (for emergencies only)
Chemtrec Number	(800) 424-9300
Issue Date	October 28, 2013
Supersedes Date	

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification
Serious eye damage/eye irritation - Category 2B

Label Elements
Hazard Symbols



Signal Word: Warning

Hazard Statements
Causes eye irritation.

Precautionary Statements

Prevention
Wash hands thoroughly after handling.

Response
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.

Storage
None

Disposal
Dispose of contents/container in accordance with local regulation.

Other Hazards
None

2. HAZARD IDENTIFICATION

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	0 - 10%
Acute dermal toxicity	0 - 10%
Acute inhalation toxicity	60 - 70%
Acute aquatic toxicity	60 - 70%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Water	7732-18-5	30 - 40%
Glycerol	56-81-5	45 - 55%
p-tertiary-Octylphenoxy polyethyl alcohol	9002-93-1	1 - 10%

4. FIRST- AID MEASURES

Description of necessary first-aid measures**Eyes**

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash affected area with plenty of water. Seek medical attention if symptoms persist.

Ingestion

Do not induce vomiting. Have victim drink 1-3 glasses of water to dilute stomach contents. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing. Obtain medical attention immediately.

Inhalation

Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention if symptoms persist.

Most important symptoms/effects, acute and delayed

Aside from the information found under description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed**Notes to Physicians**

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable (and unsuitable) Extinguishing Media

Use foam, dry chemical or carbon dioxide. Use water spray for surroundings and containers.

Specific hazards arising from the chemical

None known.

5. FIRE - FIGHTING MEASURES

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing.

Environmental Precautions

Prevent the material from entering drains or watercourses. Notify authorities if spill has entered watercourse or sewer or has contaminated soil or vegetation.

Methods and materials for containment and cleaning up

Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective equipment when handling. Do not eat or drink while handling this material. Avoid contact with eyes, skin and clothing.

Conditions for safe storage

Store at room temperature. Keep container tightly closed when not in use. Storage area should be: cool - dry - well ventilated - out of direct sunlight - away from sources of ignition (heat, sparks, flames, pilot lights) - away from incompatible materials (see Section 10)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Glycerol (as Glycerin mist)

OSHA: PEL 5 mg/m³, respirable fraction
15 mg/m³, total dust

Appropriate engineering controls

Use engineering methods to prevent or control exposure. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

Individual protection measures**Respiratory Protection**

Respiratory protection not normally required.

Skin Protection

Chemical resistant gloves

Eye/Face Protection

Chemical goggles or safety glasses with side shields

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Color	Clear
Odor	Odorless
Odor Threshold	No data available
pH	7.5
Specific Gravity	No data available
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C)	Not flammable
Vapor Pressure	No data available
Evaporation Rate (BuAc=1)	No data available
Solubility in Water	Soluble
Vapor Density (Air = 1)	No data available
VOC (g/l)	No data available
Partition coefficient (n-octanol/water)	No data available
Viscosity	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Upper explosive limit	No data available
Lower explosive limit	No data available
Flammability (solid, gas)	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

No known reactivity.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Heat - high temperatures

Incompatible Materials

Strong oxidizing agents - strong acids - strong bases

Hazardous Decomposition Products

Oxides of carbon - nitrogen oxides - sulfur oxides - hydrogen chloride gas - sodium oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Glycerol:

Oral LD50 (rat) >10,000 mg/kg

Dermal LD50 (rabbit) >10,000 mg/kg

11. TOXICOLOGICAL INFORMATION

p-tertiary-Octylphenoxy polyethyl alcohol

Oral LD50 (rat) 1800 mg/kg

Dermal LD50 (rabbit) 8000 mg/kg

Specific Target Organ Toxicity (STOT) – single exposure

Glycerol: Available data indicates this component will not cause target organ effects after a single exposure.

p-tertiary-Octylphenoxy polyethyl alcohol: No data available to this component will cause target organ effects after single exposure.

Specific Target Organ Toxicity (STOT) – repeat exposure

Glycerol: Available data indicates this component will not cause target organ effects after repeated exposure.

p-tertiary-Octylphenoxy polyethyl alcohol: No data available to indicate this component will cause target organ effects after repeated exposure.

Serious Eye damage/Irritation

Glycerol: Not irritating in rabbit studies

p-tertiary-Octylphenoxy polyethyl alcohol: In animal studies (rabbits) this component caused moderate eye irritation.

Skin Corrosion/Irritation

Glycerol: Not irritating in rabbit studies

p-tertiary-Octylphenoxy polyethyl alcohol: Available data indicates this component may cause mild skin irritation.

Respiratory or Skin Sensitization

Glycerol: No data available to indicate this component may cause skin or respiratory sensitization.

p-tertiary-Octylphenoxy polyethyl alcohol: No data available to indicate this component may cause skin or respiratory sensitization.

Carcinogenicity

Not considered carcinogenic by IARC, NTP or OSHA.

Germ Cell Mutagenicity

Glycerol: Not mutagenic in in vitro laboratory studies.

p-tertiary-Octylphenoxy polyethyl alcohol: No data available to indicate this component is mutagenic or genotoxic.

Reproductive Toxicity

Glycerol: Available data indicates this component will not cause reproductive toxicity or birth defects.

p-tertiary-Octylphenoxy polyethyl alcohol: No data available to indicate this component may cause reproductive toxicity or birth defects.

Aspiration Hazard

No data available to indicate product is an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicityp-tertiary-Octylphenoxy polyethyl alcohol

LC50 (fathead minnow) 8.9 mg/l 96h

EC50 (Daphnia) 26 mg/l 48h

12. ECOLOGICAL INFORMATION

Mobility in soil

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

Contact supplier for transport information.

15. REGULATORY INFORMATION

United States TSCA Inventory

Components of this product have been verified for the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory

Components of this product have been verified for inclusion on the Domestic Substance List (DSL).

WHMIS Classification

D2B

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

SARA Title III Sect. 311/312 Categorization

Immediate (Acute)

California Proposition 65

This product contains chemicals which the State of California has found to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 1

NFPA Code for Health - 2

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards – None

16. OTHER INFORMATION

HMIS Ratings

HMIS Code for Flammability - 1

HMIS Code for Health - 2

HMIS Code for Physical Hazard - 0

HMIS Code for Personal Protection - See Section 8

*Chronic

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

ECHA: European Chemicals Agency

IARC: International Agency for Research on Cancer

N/A: Denotes no applicable information found or available

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

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