

Material Safety Data Sheet

Material Name: 5X Covaris Lysis Buffer

*** Section 1 - Chemical Product and Company Identification ***

Manufacturer Information

Covaris Inc.
14 Gill Street
Unit 14
Woburn, MA 01801

Phone: 781-932-3959
Fax: 781-932-8705

*** Section 2 - Hazards Identification ***

Emergency Overview

May cause eye, skin, gastrointestinal, and/or respiratory tract irritation.

Potential Health Effects: Eyes

May cause irritation.

Potential Health Effects: Skin

May cause irritation.

Potential Health Effects: Ingestion

Not considered a likely route of exposure under normal product use. May cause gastrointestinal irritation if swallowed.

Potential Health Effects: Inhalation

Not considered a likely route of exposure under normal product use. May cause respiratory tract irritation.

HMIS Ratings: Health: 1 Fire: 0 HMIS Reactivity 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
56-81-5	Glycerin	50
7732-18-5	Water	34.78
7365-45-9	1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-	5.96
7647-14-5	Sodium chloride	4.09
9036-19-5	Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	3.77
9002-93-1	Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	1.25
60-00-4	Ethylenediamine tetraacetic acid	0.15

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush immediately with water for at least 15 minutes. Do not rub eyes.

First Aid: Skin

For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

If ingestion of a large amount does occur, seek medical attention.

First Aid: Inhalation

Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

None

Hazardous Combustion Products

Not determined

Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

Material Safety Data Sheet

Material Name: 5X Covaris Lysis Buffer

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Contain the discharged material.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Avoid contact with skin and eyes.

*** Section 7 - Handling and Storage ***

Handling Procedures

Wash hands after handling and before eating.

Storage Procedures

Keep this material in a cool, well-ventilated place.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

Glycerin (56-81-5)

ACGIH: 10 mg/m³ TWA (mist)

OSHA: 10 mg/m³ TWA (mist, total particulate); 5 mg/m³ TWA (mist, respirable fraction)

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

Use impervious gloves.

Personal Protective Equipment: Respiratory

Not normally needed.

Personal Protective Equipment: General

Eye wash fountain is recommended.

*** Section 9 - Physical & Chemical Properties ***

Appearance: Clear

Physical State: Liquid

Vapor Pressure: ND

Boiling Point: ND

Solubility (H₂O): ND

Evaporation Rate: ND

Octanol/H₂O Coeff.: ND

Flash Point Method: ND

Lower Flammability Limit ND

(LFL):

Auto Ignition: ND

Odor: None

pH: ND

Vapor Density: ND

Melting Point: ND

Specific Gravity: ND

VOC: ND

Flash Point: ND

Upper Flammability Limit ND

(UFL):

Burning Rate: ND

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

None

Material Safety Data Sheet

Material Name: 5X Covaris Lysis Buffer

Incompatibility

Not Determined

Hazardous Decomposition

Not Determined

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Glycerin (56-81-5)

Oral LD50 Rat 12600 mg/kg; Dermal LD50 Rat >21900 mg/kg

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Sodium chloride (7647-14-5)

Inhalation LC50 Rat >42 g/m³ 1 h; Oral LD50 Rat 3 g/kg; Dermal LD50 Rabbit >10 g/kg

Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (9036-19-5)

Oral LD50 Rat 4190 mg/kg

Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy- (9002-93-1)

Oral LD50 Rat 1800 mg/kg

Ethylenediamine tetraacetic acid (60-00-4)

Oral LD50 Rat 1700 mg/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Glycerin (56-81-5)

Test & Species

	Conditions
96 Hr LC50 Oncorhynchus mykiss	51 - 57 mL/L [static]
24 Hr EC50 Daphnia magna	>500 mg/L

Conditions

Sodium chloride (7647-14-5)

Test & Species

	Conditions
96 Hr LC50 Lepomis macrochirus	5560-6080 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	12946 mg/L [static]
96 Hr LC50 Pimephales promelas	6020-7070 mg/L [static]
96 Hr LC50 Pimephales promelas	7050 mg/L [semi- static]

Conditions

Material Safety Data Sheet

Material Name: 5X Covaris Lysis Buffer

96 Hr LC50 Pimephales promelas	6420-6700 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	4747-7824 mg/L [flow-through]
48 Hr EC50 Daphnia magna	1000 mg/L
48 Hr EC50 Daphnia magna	340.7 - 469.2 mg/L [Static]

Ethylenediamine tetraacetic acid (60-00-4)

Test & Species

96 Hr LC50 Lepomis macrochirus	34-62 mg/L [static]
96 Hr LC50 Pimephales promelas	44.2-76.5 mg/L [static]
72 Hr EC50 Desmodesmus subspicatus	1.01 mg/L
48 Hr EC50 Daphnia magna	113 mg/L [Static]

Conditions

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not Regulated

*** Section 15 - Regulatory Information ***

US Federal Regulations

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Ethylenediamine tetraacetic acid (60-00-4)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Glycerin	56-81-5	No	Yes	Yes	Yes	Yes	Yes
Ethylenediamine tetraacetic acid	60-00-4	Yes	Yes	No	Yes	Yes	No

Material Safety Data Sheet

Material Name: 5X Covaris Lysis Buffer

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	9036-19-5	1 %
Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	9002-93-1	1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Glycerin	56-81-5	Yes	DSL	EINECS
Water	7732-18-5	Yes	DSL	EINECS
1-Piperazineethanesulfonic acid, 4-(2-hydroxyethyl)-	7365-45-9	Yes	DSL	EINECS
Sodium chloride	7647-14-5	Yes	DSL	EINECS
Poly(oxy-1,2-ethanediyl), α -[(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	9036-19-5	Yes	DSL	No
Poly(oxy-1,2-ethanediyl), α -[4-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxy-	9002-93-1	Yes	DSL	No
Ethylenediamine tetraacetic acid	60-00-4	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.