

IDENTIFICATION 1.

Product Name Bind Buffer

Recommended use of the chemical and

restrictions on use

For research and development Identified uses

Restrictions on use For laboratory use

Product Numbers 190405 **Company Identification** Covaris, Inc.

> 14 Gill Street, Unit H Woburn, MA 01801 (781) 932-3959

Customer Information Number

Emergency Telephone Number

Chemtrec Number (800) 424-9300 **Issue Date** October 26, 2018 **Supersedes Date** This is the first issue.

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally larmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification

Serious eye damage/eye irritation - Category 1 Skin corrosion/irritation - Category 1C

Label Elements

Hazard Symbols



Signal Word: Danger

Hazard Statements

Causes severe skin burns and eye damage.

Precautionary Statements Prevention

Wear protective gloves, protective clothing, eye protection and face protection.

Wash hands thoroughly after handling. Response

Immediately call a poison center or doctor/physician.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash contaminated clothing before re-use. Storage

Store locked up.

Revision Date: October 26, 2018 Page 1 of 7



Disposal

Dispose of contents/container in accordance with local regulation.

2. HAZARD IDENTIFICATION

Other Hazards

None

Specific Concentration Limits

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

Acute oral toxicity <1 %
Acute dermal toxicity <1 %

Acute inhalation toxicity 40 - 50 %
Acute aquatic toxicity 40 - 50 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component CAS Number Concentration*

Guanidinium Thiocyanate 593-84-0 10 - 30%

*Exact concentration withheld as trade secret.

4. FIRST- AID MEASURES

Revision Date: October 26, 2018 Page 2 of 7



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

This product may give rise to toxic gases in a fire.

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.

Revision Date: October 26, 2018 Page 3 of 7



7. HANDLING AND STORAGE Precautions for safe handling

Wear appropriate protective equipment when handling. Use in well ventilated area. Use local exhaust ventilation. Avoid inhaling vapor. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.

Conditions for safe storage

Store between 2° and 8°C to maintain product integrity.. 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.

Guanidinium thiocyanate None

established.

Appropriate engineering controls

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

Individual protection measures Respiratory Protection

Wear respiratory protection if there is a risk of exposure to high vapor concentrations or aerosols. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Skin Protection

Chemical resistant gloves

Eye/Face Protection

Face shield and safety glasses Body

Protection

If there is danger of splashing, wear overall or apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Odor

Physical State Liquid
Color Clear
None

Odor Threshold No data available

pH 7.9 - 8.2

Specific Gravity

Boiling Range/Point (°C/F)

Melting Point (°C/F)

Flash Point (PMCC) (°C/F)

Vapor Pressure

Evaporation Rate (BuAc=1)

No data available
No data available
No data available

Solubility in Water Soluble

Vapor Density (Air = 1)No data availableVOC (g/l)No data available

Revision Date: October 26, 2018 Page 4 of 7

REV A



Partition coefficient No data available

(noctanol/water)

Viscosity

Auto-ignition Temperature

Decomposition Temperature

Upper explosive limit

Lower explosive limit

Flammability (solid, gas)

No data available

No data available

No data available

No data available

Not applicable

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

Hazardous Decomposition Products

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

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Guanidinium Thiocyanate

Oral LD50 (rat) 593 mg/kg

Specific Target Organ Toxicity (STOT) - single exposure

No data available

11. TOXICOLOGICAL INFORMATION Specific Target Organ Toxicity (STOT) -

repeat exposure

No data available

Serious Eye damage/Irritation

Guanidinium Thiocyanate: Causes serious eye damage.

Skin Corrosion/Irritation

Guanidinium Thiocyanate: Corrosive to skin.

Respiratory or Skin Sensitization

No data available

Revision Date: October 26, 2018 Page 5 of 7



Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

No data available

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Guanidinium Thiocyanate

EC50 (daphnia magna) 42.4 mg/l 48 hr

Mobility in soil

Nο

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

This product contains a component that is not listed or exempted from listing on the US EPA Toxic Substance Control Act Chemical Substance Inventory. Therefore, this product is restricted to research and development purposes only.

Canada DSL Inventory

This product contains a component that is not listed or exempted from listing on the Domestic Substance List (DSL).

SARA Title III Sect. 311/312 Categorization

Skin corrosion - Serious eye damage

Revision Date: October 26, 2018 Page 6 of 7



16. OTHER INFORMATION

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service ECHA: European Chemicals Agency

IARC: International Agency for Research on Cancer NA: Denotes no 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

Revision Date: October 26, 2018 Replaces: This is first issue. Changes made: Not applicable

Information Source and References

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

Prepared By: EnviroNet LLC.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Covaris assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.

Revision Date: October 26, 2018 Page 7 of 7

REV A