
1. IDENTIFICATION

Product Name	B3 Buffer
Recommended use of the chemical and restrictions on use	
Identified uses	For research and development
Restrictions on use	For laboratory use
Product Numbers	190478
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	June 23, 2017
Supersedes Date	This is the first issue.

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

Acute toxicity (oral) - Category 4
Serious eye damage/eye irritation - Category 2A
Skin corrosion/irritation - Category 2

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Causes serious eye irritation.
Causes skin irritation.
Harmful if swallowed.

Precautionary Statements**Prevention**

Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Wear protective gloves and eye/face protection.

Response

If on skin: Wash with plenty of soap and water.
If skin irritation occurs, get medical advice/attention.
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.
Take off contaminated clothing and wash it before re-use.
Rinse mouth.
If swallowed: Call a poison center or doctor/physician if you feel unwell.

2. HAZARD IDENTIFICATION

Storage

None

Disposal

Dispose of contents/container in accordance with local regulation.

Other Hazards

None

Specific Concentration Limits

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

Acute oral toxicity	< 10%
Acute dermal toxicity	< 10%
Acute inhalation toxicity	< 10%
Acute aquatic toxicity	75 - 85%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Guanidine Hydrochloride	50-01-1	36 – 50%

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.

5. FIRE - FIGHTING MEASURES

Specific hazards arising from the chemical

None known.

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

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 at 15 – 30°C. 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.

Guanidine Hydrochloride

None established.

Appropriate engineering controls

No specific measures necessary.

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	Slight yellow
Odor	None
Odor Threshold	No data available
pH	3.5 - 4.0
Specific Gravity	No data available
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C/F)	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 - alkalines

Hazardous Decomposition Products

Oxides of carbon - nitrogen oxides - hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Guanidine hydrochloride

Oral LD50 (rat) 475 mg/kg

Dermal LD50 (rabbit) >2000 mg/kg

Inhalation LC50: (rat- female) 3.181 mg/l , (rat- male) 7.655 mg/l, (rat- male/female) 5.319 mg/l

11. TOXICOLOGICAL INFORMATION

Acute Toxicity, cont.

(ECHA Note: This substance has to be classified according to CLP, EU GHS (Regulation (EC) No. 1272/2008) for Acute toxicity (Inhalation) as Category 4 based on the female LC50, route of administration: aerosol - air)

Specific Target Organ Toxicity (STOT) – single exposure

Available data indicates this product is not expected to cause target organ effects after a single exposure.

Specific Target Organ Toxicity (STOT) – repeat exposure

No relevant studies identified.

Serious Eye damage/Irritation

Guanidine hydrochloride: Irritating in eye irritation study (rabbits)

Skin Corrosion/Irritation

Guanidine hydrochloride: Irritating in skin irritation study (rabbits)

Respiratory or Skin Sensitization

Guanidine hydrochloride: Not sensitizing in Buehler test (guinea pig)

Respiratory sensitization: No relevant studies identified.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

Available data indicates this product is not expected to be mutagenic.

Reproductive Toxicity

No relevant studies identified.

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No relevant studies identified.

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

All components of this product are in compliance or are exempt from inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).

SARA Title III Sect. 311/312 Categorization

Acute Toxicity (oral) – Skin Irritation – Eye Irritation

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

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

Revision Date: June 23, 2017

Replaces: This is the first issue.

Changes made: NA

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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