1. IDENTIFICATION

Product Name
10X SDS Shearing Buffer D2

Recommended use of the chemical and restrictions on use
Identified Uses
For Research and Development Use Only

Product Numbers
190221

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 31, 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
This product is classified as not hazardous in accordance with the Globally Harmonized System of Classification and Labelling (GHS).

Label Elements

Hazard Symbols
None

Signal Word: None

Hazard Statements
None

Precautionary Statements

Prevention
None

Response
None

Storage
None

Disposal
None

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%
- Acute dermal toxicity: < 10%
- Acute inhalation toxicity: 1 - 10%
- Acute aquatic toxicity: 1 - 10%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>N.A.</td>
<td>90 - 99%</td>
</tr>
<tr>
<td>Sodium Dodecyl Sulfate</td>
<td>151-21-3</td>
<td>1 - 5%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Description of necessary first-aid measures
- **Eyes**: Flush the eye with plenty of water. Obtain medical attention if symptoms persist.
- **Skin**: Wash affected area with plenty of water. Seek medical attention if symptoms persist.
- **Ingestion**: Rinse mouth with plenty of water.
- **Inhalation**: Not an expected route of entry.

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.

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.

Methods and materials for containment and cleaning up
Contain and absorb using earth, sand or other insert 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.

Conditions for safe storage
Store at room temperature away from heat and direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure limits are listed below, if they exist.
Sodium Dodecyl Sulfate
None established.

Appropriate engineering controls
No specific measures necessary.

Individual protection measures
Respiratory Protection
Respiratory protection not normally required.
Skin Protection
Gloves
Eye/Face Protection
Safety glasses
Body Protection
Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling Range/Point (°C/F)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting Point (°C/F)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash Point (PMCC) (°C/F)</td>
<td>Not flammable</td>
<td></td>
</tr>
</tbody>
</table>

Revision Date: October 31, 2013
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate (BuAc=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC (g/l)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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 – sulfur oxides – sodium oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Sodium Dodecyl Sulfate
Oral LD50 (rat) 1288 mg/kg
Dermal LD50 (rabbit) >10,000 mg/kg
Inhalation LC50 (rat) 3.9 mg/l

Specific Target Organ Toxicity (STOT) – single exposure
Sodium Dodecyl Sulfate: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) – repeat exposure
Sodium Dodecyl Sulfate: Available data indicates this component will not cause target organ effects after repeated exposure.

Serious Eye damage/Irritation
Sodium Dodecyl Sulfate: Shown to be not irritating at 10% concentration in rabbit study.
11. TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation
Sodium Dodecyl Sulfate: Irritating in rabbit studies.

Respiratory or Skin Sensitization
Sodium Dodecyl Sulfate: Available data indicates this component is not a skin sensitizer.

Carcinogenicity
Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity
Sodium Dodecyl Sulfate: Negative in vivo and in vitro laboratory studies.

Reproductive Toxicity
Sodium Dodecyl Sulfate: No maternal toxicity and no developmental toxicity up to 300 and 600 mg/kg/day, respectively.

Aspiration Hazard
No data available to indicate product is an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Sodium Dodecyl Sulfate
LC50 (Fathead minnow) 29mg/l 96h

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

DOT CFR 172.101 Data
Not Regulated

UN Proper Shipping Name
Not Regulated

UN Class
None.

UN Number
None.

UN Packaging Group
None.
14. TRANSPORT INFORMATION

Classification for AIR Transportation (IATA) Environmental Hazards
Consult current IATA Regulations prior to shipping by air. Not a marine pollutant

15. REGULATORY INFORMATION

United States TSCA Inventory
All 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
All components of this product have been verified for inclusion on the Domestic Substance List (DSL).

WHMIS Classification
None
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
None

16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Flammability - 0
NFPA Code for Health - 0
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards – None

HMIS Ratings
HMIS Code for Flammability - 0
HMIS Code for Health - 0
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
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.
16. OTHER INFORMATION

Prepared By: EnviroNet LLC.

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