1. IDENTIFICATION

Product Name: Proteinase K

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

Company Identification: Covaris, Inc.

Customer Information Number: 14 Gill Street, Unit H
Woburn, MA 01801
(781) 932-3959

Emergency Telephone Number: (800) 424-9300 (for emergencies only)

Chemtrec Number: (800) 424-9300

Issue Date: September 25, 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:
Skin corrosion/irritation - Category 2
Serious eye damage/eye irritation - Category 2A
Skin sensitizer - Category 1
Respiratory Sensitizer - Category 1
Specific Target Organ Toxicity Single Exposure - Category 3

Label Elements
Hazard Symbols

Signal Word: Danger

Hazard Statements:
Causes serious eye irritation.
Causes skin irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause drowsiness and dizziness.
May cause respiratory irritation.

Precautionary Statements
Prevention
Wear eye/face protection.
Use only in well-ventilated areas.
Wear protective gloves.
In case of inadequate ventilation wear respiratory protection.
2. HAZARD IDENTIFICATION

Wash thoroughly after handling.
Avoid breathing mists, vapor or dust.
Contaminated work clothing must not be allowed out of the workplace.

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.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
Wash hands after handling.
Take off contaminated clothing and wash before re-use.
If on skin: Wash with plenty of soap and water.
Call a poison center or doctor/physician if you feel unwell.
If experiencing respiratory symptoms call a poison centre or doctor/physician.
If skin irritation or rash occurs, seek medical advice/attention.

Storage
Store locked up.
Store container tightly closed in well-ventilated place.

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 100%
Acute dermal toxicity 100%
Acute inhalation toxicity 100%
Acute aquatic toxicity 100%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proteinase K</td>
<td>39450-01-6.</td>
<td>90 - 100%</td>
</tr>
</tbody>
</table>

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.
4. FIRST- AID MEASURES

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.

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.
Proteinase K
None established.
8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**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**

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Light grey</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Range/Point (°C/F)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point (°C/F)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (PMCC) (°C/F)</td>
<td>No data available</td>
</tr>
<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>No data available</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.
10. **STABILITY AND REACTIVITY**

   **Conditions to Avoid**
   Heat – high temperatures

   **Incompatible Materials**
   Strong acids – alkalines – oxidizing agents

   **Hazardous Decomposition Products**
   None known

11. **TOXICOLOGICAL INFORMATION**

   **Acute Toxicity**
   No data available to indicate product is acutely toxic.

   **Specific Target Organ Toxicity (STOT) – single exposure**
   Available information indicates this product may cause respiratory irritation.

   **Specific Target Organ Toxicity (STOT) – repeat exposure**
   No data available to indicate product or components will cause target organ effects after repeated exposure.

   **Serious Eye damage/Irritation**
   Available information indicates this product causes serious eye irritation.

   **Skin Corrosion/Irritation**
   Available information indicates this product causes skin irritation.

   **Respiratory or Skin Sensitization**
   Available information indicates this product can cause skin or respiratory sensitization.

   **Carcinogenicity**
   No data available to indicate product may present a carcinogenic hazard.

   **Germ Cell Mutagenicity**
   No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

   **Reproductive Toxicity**
   No data available to indicate either product or components present at greater than 0.1% may cause reproductive toxicity or birth defects.

   **Aspiration Hazard**
   Not an aspiration hazard.

12. **ECOLOGICAL INFORMATION**

   **Ecotoxicity**
   No relevant studies identified.

   **Mobility in soil**
   No relevant studies identified.
12. ECOLOGICAL INFORMATION

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

15. REGULATORY INFORMATION

United States TSCA Inventory
This product is exempt from listing on the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory
This product is not listed on the Domestic Substance List (DSL).

WHMIS Classification
D2A,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)

16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Flammability - 0
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 - 0
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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