5X Lysis Buffer
Safety Data Sheet
Issue date: 9/23/2022

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : 5X Lysis Buffer
Product code : 190202, 190274

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Covaris, LLC
14 Gill St., Unit H
Woburn, MA 01801
USA
T +1 (781) 932-3959

1.4. Emergency telephone number

Emergency number : Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling
No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol polyethylene glycol ether</td>
<td>CAS-No.: 127087-87-0</td>
<td>1 – 5</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16
SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Move the affected person to fresh air. Get medical attention if symptoms occur.
First-aid measures after skin contact: Gently wash with plenty of soap and water. Get medical advice if skin irritation persists.
First-aid measures after eye contact: Rinse eyes with water as a precaution. Get medical attention if irritation develops and persists.
First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects: May cause slight temporary irritation.
Inhalation: May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin: May cause slight irritation to the skin.
Eyes: May cause minor eye irritation.
Ingestion: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Not required.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media: None.

5.2. Specific hazards arising from the chemical

Fire hazard: This product is not classified as flammable or combustible.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material.
Other information: Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).
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6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with eyes, skin and clothing. Wash hands with water and soap. Ensure adequate ventilation.
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: No special storage required.
Incompatible materials: None known.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| 5X Lysis Buffer | No additional information available |
| Nonylphenol polyethylene glycol ether (127087-87-0) | No additional information available |

8.2. Appropriate engineering controls
Appropriate engineering controls: No particular/specific measures required.
Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

| Hand protection: | No special protection required. Wear suitable gloves |
| Eye protection: | None under normal use. Use suitable eye protection |
| Skin and body protection: | None under normal conditions |
| Respiratory protection: | Not required for normal conditions of use. In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice. |
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>≈ 7.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</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>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

| Acute toxicity (oral)          | Not classified |
| Acute toxicity (dermal)        | Not classified |
| Acute toxicity (inhalation)    | Not classified |

**Nonylphenol polyethylene glycol ether (127087-87-0)**

- LD50 oral rat: 1602 mg/kg
- LD50 oral: 657.2 mg/kg body weight (Animal: rabbit, Animal sex: male, Guideline: other, Remarks on results: other, 95% CL: 265 - 1664.2)
- LD50 dermal rat: 5000 mg/kg
- LC50 Inhalation - Rat: > 20 mg/l
- LC50 Inhalation - Rat (Dust/Mist): 0.52 – 1.03 mg/l
- ATE US (oral): 1602 mg/kg body weight
- ATE US (dermal): 5000 mg/kg body weight

| Skin corrosion/irritation      | Not classified |
| pH                           | ≈ 7.5          |

**Nonylphenol polyethylene glycol ether (127087-87-0)**

- pH: 5.95 Temp.: 26 °C Concentration: 1 other
- Serious eye damage/irritation: Not classified (pH: ≈ 7.5)

**Respiratory or skin sensitization**: Not classified
**Germ cell mutagenicity**: Not classified
**Carcinogenicity**: Not classified
**Reproductive toxicity**: Not classified
**STOT-single exposure**: Not classified
**STOT-repeated exposure**: Not classified
**Aspiration hazard**: Not classified
**Viscosity, kinematic**: No data available
**Symptoms/effects**:
  - May cause slight temporary irritation.
  - May cause minor irritation to the respiratory tract and to other mucous membranes.
  - May cause slight irritation to the skin.
  - May cause minor eye irritation.
  - May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

**Ecology - general**: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

**Nonylphenol polyethylene glycol ether (127087-87-0)**

- LC50 - Fish [1]: 84.7 mg/l
Nonylphenol polyethylene glycol ether (127087-87-0)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 - Other aquatic organisms</td>
<td>23.06 mg/l</td>
</tr>
<tr>
<td>EC50 - Crustacea [1]</td>
<td>14 mg/l Test organisms (species): Daphnia magna</td>
</tr>
<tr>
<td>EC50 72h - Algae [1]</td>
<td>1948545 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)</td>
</tr>
<tr>
<td>EC50 96h - Algae [1]</td>
<td>12 mg/l Test organisms (species): other:</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste): Dispose of in accordance with applicable federal, state, and local regulations.
Waste treatment methods: Dispose of contents/container in accordance with licensed collector’s sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not regulated for transport</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. Proper Shipping Name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

No supplementary information available
14.6. Special precautions for user

DOT
No data available

TDG
No data available

IMDG
No data available

IATA
No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations
All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical(s)</th>
<th>CAS-No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonylphenol polyethylene glycol ether</td>
<td>127087-87-0</td>
<td>1 – 5%</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

Nonylphenol polyethylene glycol ether (127087-87-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations

5X Lysis Buffer
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information


Safety Data Sheet (SDS), USA
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.