Safety Data Sheet

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: AKR-190
Product Name: 5X RIPA Buffer
Recommended Use: Laboratory Research Reagents

MANUFACTURER: Cell Biolabs, Inc.
7758 Arjons Drive
San Diego, CA 92126

EMERGENCY CONTACT: +1 858 271 6500
info@cellbiolabs.com

SECTION 2. HAZARDS IDENTIFICATION

RIPA Buffer (5X) (Part No. 219001)

Classification:
Flammable solids, Category 2 (H228)
Acute toxicity, Oral, Category 4 (H302)
Skin irritation, Category 2 (H315)
Serious eye damage, Category 1 (H318)
Acute toxicity, Inhalation, Category 4 (H332)
Specific target organ toxicity (single exposure) - Respiratory system, Category 3 (H335)
Acute aquatic toxicity, Category 2 (H401)
Chronic aquatic toxicity, Category 3 (H412)

<table>
<thead>
<tr>
<th>Signal Word</th>
<th>Danger</th>
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<tbody>
<tr>
<td>Hazard Statements:</td>
<td>Flammable (H228), Harmful if swallowed or inhaled (H302 + H332), Causes skin irritation (H315), Causes serious eye damage (H318), May cause respiratory irritation (H335), Toxic to aquatic life (H401), Harmful to aquatic life with long lasting effects (H412).</td>
</tr>
<tr>
<td>Precautionary Statements:</td>
<td>Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Ground/bond container and receiving equipment (P240), Use explosion-proof</td>
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</table>

Pictogram

[Flammable, Harmful, Skin Irritation, Serious Eye Damage, Acute Toxicity, Inhalation, Respiratory System, Aquatic Life, Aquatic Life with Long Lasting Effects]
electrical/ventilating/lighting/equipment (P241), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER / doctor if you feel unwell. Rinse mouth (P301 + P312 + P330), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF INHALED: remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER / doctor if you feel unwell (P304 + P340 + P312), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310). If skin irritation occurs: get medical advice/attention (P332 + P313), If eye irritation persists: get medical advice/attention (P337 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Collect spillage (P391), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

RIPA Buffer (5X) (Part No. 219001)

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CONCENTRATION</th>
<th>CAS #</th>
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<tbody>
<tr>
<td>Tris</td>
<td>125 mM</td>
<td>77-86-1</td>
</tr>
<tr>
<td>Sodium Deoxycholate</td>
<td>5 %</td>
<td>302-95-4</td>
</tr>
<tr>
<td>SDS</td>
<td>0.5%</td>
<td>151-21-3</td>
</tr>
<tr>
<td>Igepal CA-630</td>
<td>5%</td>
<td>9002-93-1</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO2
• Special protective equipment: Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES
• Evacuate area
• Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
• Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
• Avoid raising dust.
• Ventilate area and wash spill site after material pickup is complete.

SECTION 7. SAFETY HANDLING AND STORAGE
• Should be handled by trained personnel observing good laboratory practices.
• Avoid breathing vapor.
• Avoid skin contact or swallowing.
• May cause allergic reaction in sensitized individuals.
• Store in properly labeled containers at temperature on label

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION
• Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
• Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
• Form: liquid
• Odor: no data available
• pH: no data available
• Boiling point / range: no data available
• Melting point / range: no data available
• Flash point: no data available
• Evaporation rate: no data available
• Vapor pressure: no data available
• Vapor density: no data available
• Relative density: no data available
• Water solubility: no data available
• Autoignition temperature: no data available
• Decomposition temperature: no data available
• Viscosity: no data available
• Explosive properties: no data available
• Oxidizing properties: no data available

SECTION 10. STABILITY AND REACTIVITY
• Stability: no data available
• Reactivity: no data available
• Conditions to avoid: no data available
• Incompatible materials: no data available
• Decomposition products: no data available

SECTION 11. TOXICOLOGICAL INFORMATION

• Acute toxicity
  o Tris: LD50 Oral 5.900 mg/kg (rat)
  o SDS: LD50 Oral 1.288 mg/kg (rat); LC50 Inhalation >3.9 mg/m³ (rat); LD 50 Dermal 580 mg/kg (rabbit)
  o Igepal CA-630: LD50 Oral 4.500 mg/kg (rat)
  o All other hazardous components: no data available

• Skin corrosion/irritation
  o SDS: Irritation (rabbit)
  o All other hazardous components: no data available

• Serious eye damage/irritation
  o SDS: Risk of serious damage (rabbit)
  o Igepal CA-630: Risk of serious damage to eyes (rabbit)
  o All other hazardous components: no data available

• Respiratory or skin sensitization
  o SDS: May cause respiratory irritation
  o All other hazardous components: no data available

• Germ cell mutagenicity: no data available
• Carcinogenicity: no data available
• Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

• Ecotoxicity
  o Sodium Deoxycholate: Toxicity to fish: LC50 115 mg/l 48h (Oryzias latipes)
  o SDS: LC50 3.6 mg/L in 96 hrs (rainbow trout); mortality NOEC 19.5 mg/L in 96 hrs (rainbow trout); mortality LOEC 4.6 mg/L in 8 days (fathead minnow); growth inhibition LOEC 2.68 mg/L in 6 days (algae)
  o All other hazardous components: no data available

• Mobility: no data available
• Biodegradation: no data available
• Bioaccumulation: no data available

SECTION 13. DISPOSAL CONSIDERATIONS
For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

SECTION 14. TRANSPORT INFORMATION - IATA
• Hazard Class: Not Hazardous
SECTION 15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

Revised 08/20/2021