SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier

<table>
<thead>
<tr>
<th>Product Name</th>
<th>RNA Removal Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product No</td>
<td>323748</td>
</tr>
</tbody>
</table>

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: For Research Use Only. Not for diagnostic use.

1.3 Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Cell Diagnostics</td>
<td>1-800-343-7475</td>
</tr>
<tr>
<td>7707 Gateway Blvd.</td>
<td>1-612-656-4400</td>
</tr>
<tr>
<td>Newark, CA 94560</td>
<td>Internet: <a href="http://www.acdbio.com">www.acdbio.com</a></td>
</tr>
<tr>
<td>Tel: (510) 576-8800</td>
<td>Email address: <a href="mailto:info@acdbio.com">info@acdbio.com</a></td>
</tr>
</tbody>
</table>

Canada: 21 Cannmotor Ave. Telephone: 1-855-668-8722

Toronto, ON M8Z4E6 Canada Fax: 902-827-6402

Email address: Canada.inquiries@bio-techne.com

United Kingdom: 19 Barton Lane Telephone: 44 (0)1235 529449

Abingdon Science Park Fax: 44 (0)1235 533420

Abingdon, OX14 3NB

Email address: info.emea@bio-techne.com

China 1193 Changning Road Telephone: 86-400-821-3475

Unit 1901, Raffles Changning Office Fax: 76 (021)52371001

Shanghai, China

Email address: techsupport.cn@bio-techne.com

1.4 Emergency Telephone Number

Emergency Tel: For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-262-8200 Worldwide 1-703-741-5500

Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture


- Corrosive to metals – Category 1
- Skin Corrosion – Category 1B
- Serious Eye Damage – Category 21
- STOT SE – Category 3

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Signal Word Warning
RNA Removal Solution

**Statements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H290</td>
<td>May be corrosive to metals.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

**Precautionary Statement(s):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>P234</td>
<td>Keep only in original container.</td>
</tr>
<tr>
<td>P260</td>
<td>Avoid breathing dust/fume/gas/mist/vapors/spray.</td>
</tr>
<tr>
<td>P264</td>
<td>Wash skin thoroughly after handling.</td>
</tr>
<tr>
<td>P271</td>
<td>Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/eye protection/face protection.</td>
</tr>
<tr>
<td>P303+P352+P361</td>
<td>IF ON SKIN: Wash with plenty of soap and water.</td>
</tr>
<tr>
<td>P304+P340+P310</td>
<td>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</td>
</tr>
<tr>
<td>P305+P351+P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P301+P330+P331</td>
<td>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</td>
</tr>
<tr>
<td>P312</td>
<td>Call a POISON CENTER/doctor if you feel unwell.</td>
</tr>
<tr>
<td>P332+P313</td>
<td>If skin irritation occurs: Get medical advice/attention.</td>
</tr>
<tr>
<td>P337+P313</td>
<td>If eye irritation persists: Get medical advice/attention.</td>
</tr>
<tr>
<td>P362</td>
<td>Take off contaminated clothing and wash before reuse.</td>
</tr>
<tr>
<td>P390</td>
<td>Absorb spillage to prevent material damage.</td>
</tr>
<tr>
<td>P403+P233</td>
<td>Store in a well-ventilated place. Keep container tightly closed.</td>
</tr>
<tr>
<td>P405</td>
<td>Store locked up.</td>
</tr>
<tr>
<td>P406</td>
<td>Store in corrosive resistant stainless-steel container with a resistant inner liner.</td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents/container to an approved waste disposal plant.</td>
</tr>
</tbody>
</table>

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### 3.1 Mixtures

| Proprietary Substance | < 5% |

**SECTION 4: FIRST AID AND MEASURES**

### 4.1 Description of first aid measures

#### 4.2 General information

Consult a doctor and show this safety data sheet.

**If Inhaled**

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

**In Case of Skin Contact**

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

**If Swallowed**

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**In case of Eye Contact**

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

### 4.3 Most important symptoms and effects, both acute and delayed.

**Inhalation**

Vapors may be irritating to the eyes and the respiratory tract.

**Skin**

May cause skin irritation.
RNA Removal Solution

**Eyes**
Will cause eye discomfort and redness.

**Ingestion**
Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

4.4 **Indication of immediate medical attention and special treatment needed.**
Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

---

**SECTION 5: FIRE FIGHTING MEASURES**

5.1 **Extinguishing Media**

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use large quantities of water applied as a mist or spray. Solid streams of water may be ineffective. Cool affected containers with flooding quantities of water.

5.2 **Special hazards arising from the substance or mixture.**
Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

5.3 **Precautions for fire fighters**
No specific firefighting procedure given.

**Protective equipment for fire fighters**
Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

---

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment, and emergency procedures**
Do not act without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust, or gas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

6.2 **Environmental Precautions**
Do not let product enter drains.

6.3 **Methods and material for containment and cleaning up**
Cover spillage with suitable absorbent material. Hold all material for appropriate disposal as described under section 13 of SDS.

6.4 **Reference to other sections**
For required PPE see section 8. For disposal see section 13.

---

**SECTION 7: HANDLING AND STORAGE**

7.1 **Precautions for safe handling**
Avoid inhalation, contact with eyes, skin, and clothing. Use in a well-ventilated area. Do not eat, drink, or smoke in laboratory areas. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

7.2 **Conditions for safe storage, including any incompatibilities.**
Store in cool, well-ventilated area. Store locked up. Containers, which are opened, must be carefully resealed and kept upright to prevent leakage. Keep away from heat, sparks, flame, and other sources of ignition.

7.3 **Specific end user(s)**
Not applicable.

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control Parameters**

**Appropriate Engineering Controls**
Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station. Prevent dispersion of dust. Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling product.

**Protective equipment**
RNA Removal Solution

Eye Protection
Use appropriate safety glasses.

Skin Protection
Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

Body Protection
Wear appropriate protective clothing.

Respiratory Equipment
If risk assessment indicates necessary, use a suitable respirator.

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>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH</td>
<td>12.5</td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
<td>No data available.</td>
</tr>
<tr>
<td>Boiling Point / Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>2.61 g/cm3 at 20 C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition</td>
<td>No data available</td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Temperature</td>
<td></td>
</tr>
<tr>
<td>Viscosity</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

Not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Stable under recommended transport or storage conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid.
Heat, flames, sparks

10.5 Incompatible Materials
Strong acids, lead, tin/tin oxides, zinc, aluminum, strong oxidizing agents.

10.6 Hazardous decomposition products
Sodium oxides, silicon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity
LD50 Oral – Rat – 1,152 – 1,349 mg/kg.

Skin Corrosion / Irritation
May cause skin irritation and/or dermatitis.

Serious Eye Damage/Irritation
Will cause eye discomfort, redness, and tearing of the eye..

Respiratory or Skin Sensitization
May be irritating to the respiratory tract.

Germ Cell Mutagenicity
Classified based on available data.
RNA Removal Solution

Carcinogenicity
Classified based on available data.

Reproductive Toxicity
Classified based on available data.

Specific Target Organ Toxicity - Single Exposure
Respiratory system.

Specific Target Organ Toxicity - Repeated Exposure
Respiratory system.

Aspiration Hazard
Classified based on available data.

Symptoms / Routes of Exposure
Inhalation: May cause respiratory tract irritation.
Ingestion: Harmful if swallowed.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: Causes serious eye irritation.

Delayed/Immediate Effects:
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information
Classified based on available data.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
LC50 – 210 mg/l – 96 hr (zebra fish)

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available on bioaccumulation

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

Contaminated Packaging
Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

SECTION 14: TRANSPORT INFORMATION

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA

14.1 UN Number
UN3253.

14.2 UN proper shipping name
Proprietary Information.
RNA Removal Solution

14.3 Transport hazard class(es)
   8

14.4 Packing group
   III.

14.5 Environmental hazards
   Does not meet the criteria for classification as hazardous for transport.

14.6 Special precautions for user
   Does not meet the criteria for classification as hazardous for transport.

Additional Transport Information
   Does not meet the criteria for classification as hazardous for transport.

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture
   Statutory Instruments
   TSCA (Toxic Substances Control Act): Not applicable.
   SARA 313: Not applicable.
   SARA 311/312: Not applicable.
   CERCLA Reportable Quantity: Not applicable.
   California Proposition 65: Not applicable.

15.2 Chemical Safety Assessment
   A Chemical Safety Assessment has not been made for this product.

SECTION 16: OTHER INFORMATION

Further Information
Copyright © 2021 ACD, a Bio-Techne Brand
This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet.