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

1.1 **Product Identifier**
- Product Name: RNAscope® DAB A
- Product No: 320052

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
- Identified uses: For Research Use Only. Not for diagnostic use.
- Uses advised against: None

1.3 **Details of the supplier of the safety data sheet**
- Company: Advanced Cell Diagnostics
  - Telephone: 1-800-343-7475
  - Fax: 1-612-656-4400
  - Internet: www.acdbio.com
  - Tel: (510) 576-8800
- Email address: info@acdbio.com

  Canada:
  - 21 Canmotor Ave.
  - Telephone: 1-855-668-8722
  - Fax: 902-827-6402
  - Email address: Canada.inquiries@bio-techne.com

  United Kingdom:
  - 19 Barton Lane
  - Telephone: 44 (0)1235 529449
  - Fax: 44 (0)1235 533420
  - Email address: info.emea@bio-techne.com

  China:
  - 1193 Changning Road
  - Telephone: 86-400-821-3475
  - Fax: 76 (021)52371001
  - 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**
  - Acute Toxicity – Category 4
  - Skin Corrosive – Category 1C
  - Reproductive – Category 1B

2.2 **Label elements**
- Label In Accordance with (EC) No. 1272/2008 [GHS/CLP]

  ![Signal Word](danger.png)
RNAscope® DAB A

Hazard Statements

H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H373 May cause damage to liver, kidney, and blood.

Precautionary Statement(s):

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P281 Use personal protective equipment as required.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Imidazole</th>
<th>&lt;4%</th>
</tr>
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<tbody>
<tr>
<td>CAS-No: 288-32-4</td>
<td>EC No.: 206-019-2</td>
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</tbody>
</table>

SECTION 4: FIRST AID AND MEASURES

4.1 Description of first aid measures

If Inhalation
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.

In Case of Eye Contact
Flush with copious amounts of water for at least 15 minutes. Remove contact lenses if easy to do so. 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.

4.2 Most important symptoms and effects, both acute and delayed.

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

Skin
May cause skin irritation.

Eyes
Will cause eye discomfort and redness.

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

4.3 Indication of any 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
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
No data available

8.2 Exposure controls
Protective equipment

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.

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

Hand Protection
Use suitable protective gloves if risk of skin contact.
Eye Protection
If risk of splashing, wear safety goggles or face shield.

Other Protection
Wear appropriate clothing to prevent any possibility of skin contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Little to none</td>
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<tr>
<td>Odor Threshold</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
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<td></td>
</tr>
<tr>
<td>Melting / Freezing Point</td>
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<td></td>
</tr>
<tr>
<td>Boiling Point / Range</td>
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</tr>
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<td>Flash Point</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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<td></td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
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</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limits</td>
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</tr>
<tr>
<td>Vapor Pressure</td>
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</tr>
<tr>
<td>Vapor Density</td>
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<td></td>
</tr>
<tr>
<td>Relative Density</td>
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<tr>
<td>Solubility</td>
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</tr>
<tr>
<td>Partition Coefficient</td>
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</tr>
<tr>
<td>Autoignition Temperature</td>
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</tr>
<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Explosive Properties</td>
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</tr>
<tr>
<td>Oxidizing Properties</td>
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<td></td>
</tr>
</tbody>
</table>

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
Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed.

10.4 Conditions to avoid.
Heat, moisture.

10.5 Incompatible Materials
Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products
Strong acids/alkalis, strong oxidizing/reducing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute Toxicity
Classified based on available data.

Skin Corrosion/Irritation
Classified based on available data.

Serious eye Damage/Irritation
Classified based on available date.

Cell Mutagenicity
Classified based on available data.

Carcinogenicity
Classified based on available data.

Reproductive Toxicity
Classified based on available data.
Specific Target Organ Toxicity – Single Exposure
Classified based on available data.

Specific Target Organ Toxicity – Repeated Exposure
Classified based on available data.

Aspiration Hazard
Classified based on available data.

Symptoms/Routes of Exposure
- **Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.
- **Ingestion:** There may be irritation of the throat.
- **Skin:** There may be mild irritation at the site of contact.
- **Eyes:** There may be irritation and redness.

Delayed/Immediate Effects: No known symptoms.

Additional Information
Classified based on available data.

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**SECTION 12: ECOLOGICAL INFORMATION**

12.1 **Toxicity**
No data available.

12.2 **Persistence and degradability**
No data available.

12.3 **Bio accumulative 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.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**General Information**
Waste is classified as hazardous waste. Dispose to licensed waste disposal site in accordance with the local Waste Disposal Authority.

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.

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**SECTION 14: TRANSPORT INFORMATION**

14.1 **UN Number**
Does not meet the criteria for classification as hazardous for transport.

14.2 **UN proper shipping name**
Does not meet the criteria for classification as hazardous for transport.

14.3 **Transport hazard class(es)**
Does not meet the criteria for classification as hazardous for transport.

14.4 **Packing group**
Does not meet the criteria for classification as hazardous for transport.

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**

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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