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

1.1 **Product Identifier**

Product Name   RNAscope® Green-B
Product No    320719

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**

Supplier    Advanced Cell Diagnostics
7707 Gateway Blvd.
Newark, CA 94560
Tel: (510) 576-8800

SECTION 2: HAZARDS IDENTIFICATION

2.1 **Classification of the substance or mixture**

Classification (EC 1272/2008)
- Physical and Chemical: Acute Tox. 3, Acute Tox. 3, Acute Tox 3
- Human health: Skin Corr. 1B, Skin Sens. 1 H314, H317
- Environment: Aquatic Acute 1, Aquatic Chronic 1

Classification (1999/45/EEC) Not classified

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2 **Label elements**

Contains   Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2 methy-2H isothiazol-3-one [EC no. 220-239-6] (3:1)

Label In Accordance with (EC) No. 1272/2008

Signal word   Warning
Hazard statements   H317  May cause allergic skin reaction
Precautionary Statements
- P261  Avoid breathing dust/fume/gas/mist/vapours/spray
- P272  Contaminated work clothing should not be allowed out of the workplace.
- P280  Wear protective gloves/protective clothing/eye protection/face protection.
- P302 + P352  IF ON SKIN: Wash with plenty of soap and water.
- P333 + P313  If skin irritation or rash occurs, get medical advice/attention.
- P363  Wash contaminated clothing before reuse.

2.3 **Other Hazards**

No risks worthy of mention.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

<table>
<thead>
<tr>
<th>Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</th>
<th>&lt; 20 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No. 55965-84-9</td>
<td>EC No.: 613-167-00-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification (EC 1272/2008)</th>
<th>Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 H331</td>
<td>T-Toxic R23/24/25-34-43-50-53</td>
</tr>
<tr>
<td>Acute Tox. 3 H311</td>
<td>C-Corrosive</td>
</tr>
<tr>
<td>Acute Tox. 3 H301</td>
<td>N-Dangerous for the environment</td>
</tr>
<tr>
<td>Skin Corr. 1B H314</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1 H317</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 1 H400</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 1 H410</td>
<td></td>
</tr>
</tbody>
</table>

The full test for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID AND MEASURES

General information

Remove contaminated clothing immediately and dispose of safely. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

4.1 Description of first aid measures

Inhalation
Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Ingestion
Rinse mouth immediately and drink plenty of water.

Skin Contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call physician immediately.

Eye Contact
Rinse immediately with plenty of water and seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

4.3 Indication of any immediate medical attention and special treatment needed

No special measures are necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media
Extinguishing materials should be selected according to the surrounding area.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
The product itself does o burn.

5.3 Advice for fire fighters

Special Fire Fighting Procedures
Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit. Supress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2 Environmental Precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waster disposal.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.
SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin, eyes and clothes. Handle and open container with care.

Precautions for protection against fire and explosion
Keep away from sources of ignition. No smoking. Take measures against static discharge. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only
Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place.

Storage compatibility
Do not store together with: material, rich in oxygen, oxidizing. Keep only in the original container in a cool well-ventilated place.

Store tightly closed, in the original vessel at temperatures between 2 – 8 °C.

7.3 Specific end user(s)
This product is intended for professional use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters
Exposure limits (EH40)

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA 8 Hrs</th>
<th>STEL – 15 min</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol, mist</td>
<td></td>
<td>10 mg/mL³</td>
<td></td>
<td>WEL</td>
</tr>
</tbody>
</table>

WEL = Workplace Exposure Limits

8.2 Exposure controls
Protective equipment

Respiratory Equipment
Provide fresh air.

Hand Protection
Wear suitable gloves.

Eye Protection
Tightly sealed safety glasses

Other Protection
Wear suitable protective clothing...

Hygiene measures
Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using, do not eat or drink.

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>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
</tbody>
</table>

9.2 Other information

Not determined

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Product has not been tested.

10.2 Chemical stability
If stored correctly, the product is stable at least until the expiry date printed on the label.

10.3 Possibility of hazardous reactions
Product has not been tested.

10.4 Conditions to avoid
Non-normal temperature conditions
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure routes</th>
<th>Method</th>
<th>Dose</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2 methy-2H isothiazol-3-one [EC no. 220-239-6] (3:1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oral</td>
<td>LD50</td>
<td>862 mg/kg</td>
<td>Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dermal</td>
<td>LD50</td>
<td>2800 mg/kg</td>
<td>Rabbit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>inhalative (4 h) vapour</td>
<td>ATE</td>
<td>3 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inhalative aerosol</td>
<td>ATE</td>
<td>0.5 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information on tests
May cause sensitization by skin contact
The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
There are no data on the ecotoxicity of this product.

12.1 Toxicity
No information available

12.2 Persistence and degradability
Degradability
No data available

12.3 Bioaccumulative potential
Bioaccumulative potential
No data available

12.4 Mobility in soil
Mobility
No data available
Surface Tension
No data available

12.5 Results of PBT and vPvB assessment
Not applicable

12.6 Other adverse effects
Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC)

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Disposal should be in accordance with applicable national, state and local regulations. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number
Not applicable

14.2 UN proper shipping name
Not applicable

14.3 Transport hazard class(es)
Not applicable

14.4 Environmental hazards
Environmentally Hazardous Substance/Marine Pollutant
Dangerous for the environment

14.6 Special precautions for user
No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No dangerous good in sense of these transport regulations
SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Environmental Listing
National regulatory information
Water contaminating class (D): 3-highly water contaminating

SECTION 16: OTHER INFORMATION

SDS No. Version 01
Date June 2015
Risk Phrases in Full
R23/24/25 Toxic by inhalation, in contact with skin and swallowed
R34-43 Causes skin irritation and sensitivity
R 50-53 Very toxic to aquatic life with long lasting effects.
Hazard Statements in Full
H331 Toxic if inhaled
H317 Toxic in contact with skin
H314 Causes severe skin burns and eye damage
H311 Toxic in contact with skin
H301 Toxic if swallowed
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting affects

Disclaimer
This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user’s responsibility to satisfy himself as to the suitability of such information for his own particular us