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

1.1 Product Identifier
Product Name: RNAscope® 2.5 VS Pretreat 3 - Protease
Product No: 322218

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: Not classified
Human health: Skin Sens. 1 H317
Environment: Not classified

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: METHYL-2H or METHYL-4 (3:1) Mixture of EC NO 220-239-6
Label In Accordance with (EC) No. 1272/2008

Signal Word: Warning
Hazard Statements: H317 May cause an allergic skin reaction
Precautionary Statements: P280 Wear protective gloves/protective clothing/eye protection/face
P501 Dispose of contents/container in accordance with national regulations

Supplementary Precautionary Statements:
P272 Contaminated work clothing should not be allowed out of the workplace
P261 Avoid breathing vapor/spray
P321 Specific treatment (see medical advice on this label)
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
Not classified as PBT/vPvB by current EU criteria.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS-No:</th>
<th>EC No.:</th>
<th>Classification (EC 1272/2008)</th>
<th>Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane – 1,2-diol</td>
<td>57-55-6</td>
<td>200-338-0</td>
<td>Not classified</td>
<td>Not classified</td>
</tr>
<tr>
<td>Methanol – 1,2-propanediol</td>
<td>67-62-7</td>
<td>203-195-5</td>
<td>Acute Tox. 3 – H301 T;R23/24/25</td>
<td>Acute Tox. 3 – H311 C;R34</td>
</tr>
<tr>
<td>Methanol – 1,2-propanediol</td>
<td>67-62-7</td>
<td>203-195-5</td>
<td>Acute Tox. 3 – H331 R43</td>
<td></td>
</tr>
<tr>
<td>Methanol – 1,2-propanediol</td>
<td>67-62-7</td>
<td>203-195-5</td>
<td>Skin Corr. 1B – H314</td>
<td></td>
</tr>
<tr>
<td>Methanol – 1,2-propanediol</td>
<td>67-62-7</td>
<td>203-195-5</td>
<td>Skin Sens. 1 – H317</td>
<td></td>
</tr>
<tr>
<td>Methanol – 1,2-propanediol</td>
<td>67-62-7</td>
<td>203-195-5</td>
<td>Aquatic Acute 1 – H400</td>
<td></td>
</tr>
</tbody>
</table>

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

SECTION 4: FIRST AID AND MEASURES

4.1 Description of first aid measures

General information
Treat Symptomatically

Inhalation
Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion
NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin Contact
Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye Contact
Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information
May cause skin sensitization

4.3 Indication of any immediate medical attention and special treatment needed.

Treat Symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Extinguishing Media
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3 **Advice for fire fighters**

**Special Fire Fighting Procedures**
No specific fire fighting procedure given.

**Protective equipment for fire fighters**
Self contained breathing apparatus and full protective clothing must be worn in case of fire in.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 **Environmental Precautions**
Do not discharge into drains, water courses or onto the ground.

6.3 **Methods and material for containment and cleaning up**
Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

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 spilling, skin and eye contact.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

7.3 **Specific end user(s)**
The identified uses for this product are detailed in Section 1.2.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control Parameters**

**Ingredient Comments**
No exposure limits noted for ingredient(s)

8.2 **Exposure controls**

**Protective equipment**

**Engineering measures**
Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

**Respiratory Equipment**
No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

**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.

**Hygiene measures**
DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties**

**Appearance**
Liquid

9.2 **Other information**

Not available
SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
There are no known reactivity hazards associated with this product.

10.2 Chemical stability
Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions
No available

10.4 Conditions to avoid
Avoid excessive heat for prolonged periods of time. Avoid contact with strong oxidizers.

10.5 Incompatible Materials
Materials to avoid
Strong oxidizing substances. Strong reducing agents.

10.6 Hazardous decomposition products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Toxicological information
No information available
Inhalation
In high concentrations, vapors may irritate throat and respiratory system and cause coughing
Ingestion
May cause discomfort if swallowed
Skin contact
May cause sensitization by skin contact
Eye contact
Spray and vapors in the eyes may cause irritation and smarting.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
Not regarded as dangerous for the environment.

12.1 Toxicity
Acute Fish Toxicity
No data available

12.2 Persistence and degradability
Degradability
No data available

12.3 Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation

12.4 Mobility in soil
Mobility
No data available

12.5 Results of PBT and vPvB assessment
Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects
Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

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

13.1 Waste treatment methods
Dispose of waste and residues in accordance with local authority requirements.
SECTION 14: TRANSPORT INFORMATION

Road Transport Notes Not classified
Rail Transport Notes Not classified
Sea Transport Notes Not classified
Air Transport Notes Not classified

14.1 **UN Number**
Not applicable

14.2 **UN proper shipping name**
Not applicable

14.3 **Transport hazard class(es)**
Not applicable

**RNAscope® 2.5 VS Pretreat 3 – Protease**

14.4 **Environmental hazards**
Environmentally Hazardous Substance/Marine Pollutant
No

14.5 **Special precautions for user**
Not applicable

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

SECTION 15: REGULATORY INFORMATION

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

**Environmental Listing**

**Approved Code of Practice**
Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

**Guidance Notes**
Workplace Exposure Limits EH40. CHIP HSG(108).

**EU Legislation**

15.2 **Chemical Safety Assessment**
No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

**Risk Phrases In Full**
R34 Causes burns
R43 May cause sensitization by skin contact
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed
R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

**Hazard Statements In Full**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H331 Toxic if inhaled.
H301 Toxic if swallowed
H311 Toxic in contact with skin.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
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 use.