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

1.1 **Product Identifier**
   - **Product Name**: RNAscope® 2.5 LS Duplex Wash
   - **Product No**: 322464

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
   - **Address**: 3960 Point Eden Way
   - **City**: Hayward, CA 94545
   - **Phone**: (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: Not classified
     - Environment: Not classified

2.2 **Label elements**
   - **Label In Accordance with (EC) No. 1272/2008**
   - **No pictogram required**

2.3 **Other Hazards**
   - Not classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Mixtures**
   - **Lithium chloride**: <1 %
   - **CAS No**: 7447-41-8
   - **EC No.**: 231-212-3
   - **Classification (EC 1272/2008)**
     - Acute Tox. 4 - H302
     - Skin Irrit. 2 - H315
   - **Classification (67/548/EEC)**
     - Xi;R22
     - XiiR36/38

   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**
   - **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**: 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. Get medical attention if any discomfort continues.
4.2 Most important symptoms and effects, both acute and delayed
   General information
   No specific information.
4.3 Indication of any immediate medical attention and special treatment needed.
   Treat Symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 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.
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**
No specific 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 determined

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

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**
No data on the toxicity of the formulation are available. The classification of the formulation is calculated based on the composition of hazardous components.

### SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**
- **Acute Fish Toxicity**: Not considered toxic to fish

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

14.4 Environmental hazards
Environmentally Hazardous Substance/Marine Pollutant
No

14.6 Special precautions for user
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
R22 Harmful if swallowed
R36/38 Irritating to eyes and skin
NC Not classified

Hazard Statements In Full
H319 Causes serious eye irritation
H315 Causes skin irritation
H302 Harmful if swallowed
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.