



# SAFETY DATA SHEET

## RNAscope® LS Multiplex AMP 1

According to Regulation (EC) No 1907/2006

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

#### 1.1 Product Identifier

Product Name RNAscope® LS Multiplex AMP 1  
Product No 322801

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

Identified uses For Research Use Only. Not for use in diagnostic procedures.

#### 1.3 Details of the supplier of the safety data sheet

Company	Advanced Cell Diagnostics 7707 Gateway Blvd. Newark, CA 94560	Telephone	(510) 576-8800
		Fax:	(510) 576-8798
		Internet:	www.acdbio.com
		Email address:	<a href="mailto:info@acdbio.com">info@acdbio.com</a>
Canada:	21 Canmotor Avenue Toronto, Ontario M8Z4E6 Canada	Telephone:	1-855-668-8722
		Fax:	902-827-6402
		Email address:	<a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a>
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone:	44 (0)1235 529449
		Fax:	44 (0)1235 533420
		Email address:	<a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a>
China	1193 Changning Road Unit 1901, Raffles Changning Shanghai, China	Telephone:	86-400-821-3475
		Office 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

Classification (EC) 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]  
Carcinogen – Category 2  
Reproductive Toxicity – Category 1B  
STOT RE – Category 2

#### 2.2 Label elements

Label in Accordance with (EC) 1272/2008 [GHS/CLP]



Signal word

Danger

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Statement(s):

Hazard Statement(s)

- 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

Formamide	≤30%
CAS-No: 75-12-7	EC No.: 200-842-0

## SECTION 4: FIRST AID AND MEASURES

### 4.1 Description of first aid measures

#### General Advice

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.

#### 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 the 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 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

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.

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## 5.2 Special hazards arising from the substance or mixture.

### Hazardous combustion products

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 Advice 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

ACGIH TLV TWA – 10 ppm

OSHA PEL TWA – 20 ppm

### 8.2 Exposure controls

#### Protective equipment



#### Engineering measures

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.

#### 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.

#### Eye Protection

Use approved safety goggles or face shield.

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## Body Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor 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 with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Clear liquid	<b>Vapor Pressure</b>	No data available
<b>Odor</b>	Ammonia like	<b>Vapor Density</b>	No data available
<b>Odor Threshold</b>	No data available.	<b>Relative Density</b>	No data available
<b>pH</b>	4-5	<b>Solubility</b>	No data available
<b>Melting / Freezing Point</b>	No data available.	<b>Partition Coefficient</b>	No data available
<b>Boiling Point / Range</b>	210 °C	<b>Autoignition Temperature</b>	No data available
<b>Flash Point</b>	175 °C	<b>Decomposition Temperature</b>	No data available
<b>Evaporation Rate</b>	No data available.	<b>Viscosity</b>	No data available
<b>Flammability (Solid, Gas)</b>	No data available.	<b>Explosive Properties</b>	No data available
<b>Upper/Lower Flammability or Explosive Limits</b>	No data available	<b>Oxidizing Properties</b>	No data available

### 9.2 Other information

No data available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under normal conditions.

### 10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid.

Heat, flames, sparks

### 10.5 Incompatible Materials

Strong oxidizing substances. Strong reducing agents.

### 10.6 Hazardous decomposition products

Nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen cyanide, ammonia.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

LD50 Oral (rat) – 5577 mg/kg

LC50 Inhalation (rat) - >3900 ppm.

#### 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

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Classified based on available data.

## **Carcinogenicity**

Possible cancer hazard. May cause cancer based on animal data.

## **Reproductive Toxicity**

May cause harm to the unborn child. Developmental effects have occurred in experimental animals.

## **Specific Target Organ Toxicity - Single Exposure**

Classified based on available data.

## **Specific Target Organ Toxicity - Repeated Exposure**

Liver, kidney, blood.

## **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.

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## **SECTION 12: ECOLOGICAL INFORMATION**

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### **12.1 Toxicity**

LC50 – 9135 mg/L, 96h (brachydanio rerio).

### **12.2 Persistence and degradability**

No data available

### **12.3 Bio accumulative potential**

No data available

### **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**

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### **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**

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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**

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.

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## 14.3 Transport hazard class(es)

Does not meet the criteria for classification as hazardous for transport.

## 14.4 Packaging 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

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