SAFETY DATA SHEET

Control Probes

According to Regulation (EC) No. 453/2010

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

1.1 Product Identifier

Product Name	RNAscope® HiPlex12 Positive Control Probe – Hs
Product No	324311 RNAscope® HiPlex12 Negative Control Probe 324341 RNAscope™ HiPlex12 Positive Control Probe – Mm v2 324433 RNAscope™ HiPlex12 Positive Control Probe – Rn v2 324434 RNAscope™ Plus smRNA-RNA Control Probes #####1, #####8 RNAscope™ 2.5 VS Duplex Control Probes #####9

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 Fax: Internet: Email address:	(510) 576-8800 (510) 576-8798 www.acdbio.com info.acd@bio-techne.com
Canada:	21 Canmotor Avenue Toronto, Ontario M8Z4E6 Canada	Telephone: Fax: Email address:	1-855-668-8722 902-827-6402 Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone: Fax: Email address:	44 (0)1235 529449 44 (0)1235 533420 info.emea@bio-techne.com
China	1193 Changning Road Unit 1901, Raffles Changning Shanghai, China	Telephone: Office Fax: Email address:	86-400-821-3475 76 (021)52371001 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 according to Regulation (EC) No 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

Labeling according to Regulation (EC) No. 1272/2008 (GHS/CLP)

Signal Word Danger

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

3.2 **Mixtures**

Formamide	≤ 50%
CAS-No: 75-12-7	EC No.: 200-842-0

SECTION 4: FIRST AID AND MEASURES

4.1 **Description of first aid measures**

General information

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.

Ingestion

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

Skin

May cause skin irritation.

Eyes

Will cause eye discomfort and redness.

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 r.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**

Do not take action 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**

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.**

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

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.

8.2 **Personal Protective Equipment**

Eye/Face Protection

Use appropriate safety glasses.

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.

Body Protection

Wear appropriate protective clothing.

Respiratory Equipment

If risk assessment indicates necessary, use a suitable respirator.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Clear liquid	Vapor Pressure	No data available

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

9.2 **Other safety information**

Not data available

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity**

Stable under normal conditions.

10.2 **Chemical stability**

Stable under recommended storage conditions.

10.3 **Possibility of hazardous reactions**

No data available

10.4 **Conditions to avoid.**

Heat, flames, sparks

10.5 **Incompatible Materials**

Strong oxidizing agents. Strong bases. Strong acids.

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

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.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

12.1 **Toxicity**

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

12.2 **Persistence and degradability**

No data available

12.3 **Bioaccumulative 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.

SECTION 13: DISPOSAL CONSIDERATIONS

General Information

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.

SECTION 14: TRANSPORT INFORMATION

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.

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

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