

Safety Data Sheet

Version A SDS Revision Date 4/23/2024 Effective Date: 05/07/2024

www.acdbio.com

. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifiers

Product Name: RNAscope™ LS 4-Plex Ancillary Kit for LS Multiplex Fluorescent

Product Number: 322830

Components: RNAscope™ LS Multiplex HRP Blocker (Product #322807)

RNAscope™ Multiplex TSA Buffer (Product #322809)
RNAscope™ LS Multiplex HRP C4 (Product #322831)

12 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 Telephone: 1-510-576-8800

 7707 Gateway Blvd
 Fax:
 1.510.576.8798

 Newark, CA,94560, USA
 Internet:
 www.acdbio.com

 Email address:
 info.acd@bio-techne.com

1.4 Emergency Telephone Number

For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night: Within U.S. 1-800-424-9300 Worldwide 1-703-527-3887 Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-

529449 / China 86-400-821-3475

2 HAZARDS IDENTIFICATION

See additional safety data sheets.



SAFETY DATA SHEET

RNAscope® LS Multiplex HRP Blocker

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 HRP Blocker

Product No 322807

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 Telephone: 1-510-576-8800

7707 Gateway Blvd. Fax: 1-510-576-8798

Newark, CA 94560 Internet: www.acdbio.com

Email address info@acdbio.com

Canada: 21 Canmotor Ave. Telephone: 1-855-668-8722

Toronto, ON M8Z4E6 Fax: 902-827-6402

Canada Email address: <u>Canada.inquiries@bio-techne.com</u>

United Kingdom: 19 Barton Lane Telephone: 44 (0)1235 529449

Abingdon Science Park Fax: 44 (0)1235 533420

Abingdon, OX14 3NB Email address: <u>info.emea@bio-techne.com</u>

China 1193 Changning Road Telephone: 86-400-821-3475

Unit 1901, Raffles Changning Office Fax: 76 (021)52371001

Shanghai, China Email address: <u>techsupport.cn@bio-techne.com</u>

1.1 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 [OSH

Skin Irritation – Category 2 Eye Damage – Category 1

2.2 Label elements

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

Pictogram(s):



Signal Word: Danger

Statement(s):

Hazard Statement(s)

H315 Causes skin irritation.H318 Causes serious eye damage.

Precautionary Statement(s):

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do so. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with

local/regional/national/international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

HYDROGEN PEROXIDE SOLUTION...%

< 5 %

CAS-No: 7722-84-1

EC No.: 231-765-0

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

May cause serious eye damage.

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

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 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 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

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 - 1 ppm

8.2 Exposure controls

Protective equipment









Product Description

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.

Eye/Face Protection

Use appropriate safety glasses.

Hand 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 Protection

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	No data available	Vapor Density	No data available
Odor Threshold	No data available.	Relative Density	No data available
pН	No data available	Solubility	No data available
Melting / Freezing Point	No data available.	Partition Coefficient	No data available
Boiling Point / Range	No data available	Autoignition Temperature	No data available
Flash Point	No data available	Decomposition Temperature	No data available
Evaporation Rate	No data available.	Viscosity	No data available
Flammability (Solid,Gas)	No data available.	Explosive Properties	No data available
Upper/Lower Flammability or Explosive Limits	No data available	Oxidizing Properties	No data available

9.2 Other information

Not 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**

Brass, copper, powdered metals, iron and iron salts, combustible materials.

10.6 Hazardous decomposition products

No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

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.

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Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

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

Eco toxicity

Not regarded as dangerous for the environment.

12.1 Toxicity

No data available

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.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

$15.1 \quad \text{Safety, health, and environmental regulations/legislation specific for the substance or mixture} \\$

Environmental Listing

TSCA (Toxic Substances Control Act): Not applicable

SARA 313: Not applicable

SARA 311/312: Acute Health Hazard.

CERCLA Reportable Quantity: 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.



SAFETY DATA SHEET

RNAscope® Multiplex TSA Buffer

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® Multiplex TSA Buffer

Product No 322809

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 Telephone +1 510-576-8800

7707 Gateway Blvd. Fax: +1 510-576-8798 Newark, CA 94560 Internet: www.acdbio.com

Email address: info.acd@bio-techne.com

Canada: 21 Canmotor Avenue Telephone: +1 855-668-8722

Toronto, Ontario M8Z4E6 Fax: +1 905-827-6402

Canada Email address: Canada.inquiries@bio-techne.com

United Kingdom: 19 Barton Lane Telephone: +44 (0)1235 529449

Abingdon Science Park Fax: +44 (0)1235 533420

Abingdon, OX14 3NB Email address: info.emea@bio-techne.com

China 1193 Changning Road Telephone: +86 400-821-3475

Unit 1901, Raffles Changning Fax: +76 (021)52371001

Shanghai, China 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. 1-800-424-9300 Worldwide +1 703-527-3887

Bio-Techne Tel: US: +1 612-379-2956 or +1 800-343-7475 / Europe: +44 (0)1235-529449 / China +86 400-821-3475

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with (EC) No 1272/2008 [GHS/CLP], (EU) 878/2020, 29 CFR 1910.1200 [OSHA] Sensitization, skin - Category 1

2.2 Label elements

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



Signal Word: Warning

Statement(s) Hazard Statements

H317 May cause an allergic skin reaction.

Precautionary Statements

P261 Avoid breathing vapor/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. P362+P364 Take off contaminated clothing and wash it before reuse.

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2.3 Other Hazards

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) ≤ 0.0025%

CAS # 55965-84-9 EC: 613-167-00-5

Classification (EC 1272/2008)
Skin Sens. 1 − H317

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.

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.

In case of Eye Contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated Indication of any immediate medical attention and special treatment needed.

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

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Special hazards arising from the substance or mixture.

In combustion, may emit toxic fumes.

5.3 Precautions for fire fighters

No specific firefighting procedure given.

Protective equipment 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.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

CONFIDENTIAL & PROPRIETARY ADVANCED CELL DIAGNOSTICS

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. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use.

Specific end user(s)

Not applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Use in a fume hood where applicable. 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.

Protective equipment









Eye 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.

Eye Protection

If risk of splashing, wear safety goggles or face shield.

Body Protection

Wear appropriate protective clothing.

Respiratory Equipment

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid	Vapor Pressure	No data available
Odor	Little to none	Vapor Density	No data available
Odor Threshold	No data available	Relative Density	No data available
pН	No data available	Solubility	No data available
Melting / Freezing Point	No data available	Partition Coefficient	No data available
Boiling Point / Range	No data available	Autoignition Temperature	No data available
Flash Point	No data available	Decomposition Temperature	No data available
Evaporation Rate	No data available	Viscosity	No data available
Flammability (Solid, Gas)	No data available	Explosive Properties	No data available

CONFIDENTIAL & PROPRIETARY ADVANCED CELL DIAGNOSTICS

Upper/Lower Flammability

or Explosive Limits

No data available

Oxidizing Properties

No data available

9.2 Other information

Not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

Heat, moisture.

10.5 Incompatible Materials

Strong acids/alkalis, strong oxidizing/reducing agents.

10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Classified based on available data.

Skin Corrosion / Irritation

Classified based on available data.

Serious Eye Damage/Irritation

Classified based on available data.

Cell Mutagenicity

Classified based on available data.

Carcinogenicity

Classified based on available data.

Reproductive Toxicity

Classified based on available data.

Specific Target Organ Toxicity - Single Exposure

Classified based on available data.

Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data.

Aspiration Hazard

Classified based on available data.

Symptoms/Routes of Exposure

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness. Delayed/Immediate Effects: No known symptoms.

Additional Information

Classified based on available data.

SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**

No data available

12.2 Persistence and degradability

CONFIDENTIAL & PROPRIETARY ADVANCED CELL DIAGNOSTICS

No data available

12.3 Bioaccumulative potential

No data available on bioaccumulation

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

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 Packing 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.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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

Statutory Instruments

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



SAFETY DATA SHEET

RNAscope® LS Multiplex HRP C4

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 HRP C4

Product No 322831

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

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 Skins Sens. 1-H317
Environment Not classified

Classification (1999/45/EEC) R43 Not classified The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2 Label elements

Contains 5-Chloro-2-Methyl-4isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1)

Mixture of EC No. 220-239-6

Label In Accordance with (EC) No. 1272/2008; 2018/1480



Signal Word Warning

Hazard Statements

H317 May cause an allergic skin reaction.

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye

protection/face protection.

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.

P273 Avoid release to the environment.

2.3 Other Hazards

Not classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Sodium Hydroxide < 1%			
CAS-No: 1310-73-2	EC No.: 215-185-5		
Classification (EC 1272/2008 Skin Corr. 1A H314)	Classification (67/548/EEC) C;R35	
5-Chloro-2-Methyl-4isothiazo < 0.0025%	olin-3-one and 2-Meth	nyl-2H-isothiazol-3-one (3:1)	
CAS-No: 55965-84-9	EC No.: 220-239-6		
Classification (EC 1272/2008 Acute Tox. 3 – H301 Acute Tox. 3 – H311)	Classification (67/548/EEC) T;R23/24/25 C;R34	
Acute Tox. 3 – H331 Skin Corr. 1B – H314 Skin Sens. 1 – H317		R43 N;R50/53	
Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410			

The full test 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

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 vapors.

5.3 Advice for fire fighters

Special Fire Fighting Procedures

No specific firefighting procedure given.

Protective equipment for fire fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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

Keep container tightly closed. Keep container in a cool, well-ventilated area.

7.3 Specific end user(s)

The identified uses for this product are detained 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 vapors.

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 with soap & water if skin becomes 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

Not 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 vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicological information

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

Health warnings

INHALATION: In high concentrations, vapors may irritate throat and respiratory system and cause coughing. INGESTION: May cause discomfort if swallowed. SKIN CONTACT: Liquid may irritate skin. EYE CONTACT: Spray and vapor in the eyes may cause irritation and smarting.

SECTION 12: ECOLOGICAL INFORMATION

Eco toxicity

Not regarded as dangerous for the environment.

12.1 **Toxicity**

Acute Fish Toxicity

Not considered toxic to fish.

12.2 Persistence and degradability

Degradability

No data available

12.3 Bio accumulative potential

Bio accumulative potential

No data available on bioaccumulation

12.4 Mobility in soil

Mobility

No data available

Adsorption/Desorption Coefficent

Not determined.

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. Dispose 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
Rail Transport Notes
Not classified.
Not classified.
Not classified.
Not classified.
Not classified.
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 Packing group

Not applicable.

14.5 Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

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

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Risk Phrases in Full

R34 Causes burns. R35 Causes severe 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.

NC Not classified.

Hazard Statements in Full

H314 Causes skin irritation

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.