

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

1.1 Product Identifier

Product Name RNAscope® Green B
Product No 320719

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	+1 510-576-8800
		Fax:	+1 510-576-8798
		Internet:	www.acdbio.com
		Email address:	info@acdbio.com
Canada:	21 Canmotor Avenue Toronto, Ontario M8Z4E6 Canada	Telephone:	+1 855-668-8722
		Fax:	+1 905-827-6402
		Email address:	Canada.inquiries@bio-techne.com
United Kingdom:	19 Barton Lane Abingdon Science Park Abingdon, OX14 3NB	Telephone:	+44 (0)1235 529449
		Fax:	+44 (0)1235 533420
		Email address:	info.emea@bio-techne.com
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. 1-800-424-9300 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 (EC) 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]
Skin corr./irrit. 2A – H314
Muta. – H341
Carc. 1B – H350
Repr. 1B – H360
Contains Tetramethylbenzidine, Ethylene Glycol, and Glyoxaline

2.2 Label elements

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



Signal word Danger

Statement(s):

Hazard Statements

H314	Causes severe skin burns and eye damage.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

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Precautionary Statement(s):

- P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective clothing, gloves, eye and face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P305+P351+P338 IF exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. If present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

- 2.3 There are no additional ingredients present and, in the concentrations, applicable, are classified as hazardous to health or the environment and do not require report in this section. Occupational exposure limits if available, are listed in Section 8.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Ethylene Glycol	< 80%
CAS-No: 107-21-1	EC No.: 203-473-3
Classification (EX1272/2008)	Classification (67548/EEC)
Not classified	[Xn]R22
3,3',5,5' – Tetramethylbenzidine	<5%
CAS – No: 54827-17-7	EC No: 259-364-6
Classification (EX1272/2008)	Classification (67548/EEC)
Skin irritation (Category 2), H315	
Eye irritation (Category 2A), H319	
Specific target organ toxicity – single exposure (Category 3)	
Respiratory system, H335	
Glyoxaline	<5%
CAS No.: 288-32-4	EC No: 206-019-2
Classification (EX1272/2008)	Classification (67548/EEC)
Acute Tox. 4; Skin Corr. 1B	
Repr. 1B, H302, H314, H360D	

The Full Test for all H and R-Phrases and Hazard Statements are Displayed in Section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable are classified as hazardous to health of the environment and do not require report in this section. Occupational exposure limits, if available, are listed in section 8.

SECTION 4: FIRST AID AND MEASURES

4.1 Description of first aid measures

General Advice

Consult a doctor and show this safety data sheet to the document in attendance.

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

Remove contaminated clothing immediately and wash skin with soap and water. Get Medical attention promptly if symptoms occur after washing. Generally, the product does not irritate the skin.

In Case of Eye Contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Obtain medical attention and bring these instructions.

If Swallowed

Immediately rinse mouth and drink plenty of water (200-300 mL). DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.

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

Inhalation

May cause coughing or mild irritation.

Skin

Prolonged skin contact may cause redness and irritation.

Eyes

May cause temporary eye irritation.

Ingestion

May cause discomfort if swallowed.

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. Treat symptomatically

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Fire can be extinguished using Water spray, Alcohol resistance Foam, Powder.

5.2 Special hazards arising from the substance or mixture.

Hazardous combustion products

The product is non-combustible. If heated, irritating vapors may be formed. Hydrogen. Chloride (HCl). When heated and in case of fire, very toxic nitrogen oxides are formed.

5.3 Advice for fire fighters

Self-contained NIOSH/MSHA (approved or equivalent) breathing apparatus and full protective chemical resistant clothing, gloves, and eye protection must be worn. In case of fire, use extinguishing measures that are appropriate to local circumstances and the surrounding area.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Minimize direct contact with skin or eyes and prevent inhalation. Stop leak, if possible, without any risk. Remove or isolate all sources of ignition. For personal protection see section 8.

6.2 Environmental Precautions

Do not let product enter drains. Prevent further leakage or spillage if safe to do so.

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

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Avoid inhalation of vapors/spray and contact with skin and eyes. Wash contaminated clothing before reuse. For precautions see Section 2.

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.

Store at 2-8°C

7.3 Specific end user(s)

Not applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Ethylene Glycol –UK – 8 our TWA 60 mg/m³, UK – 15 min STEL – 125 mg/m³

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.

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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.

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

Appearance	Liquid, Light yellow and Clear	Vapor Pressure	No data available
Odor	Odorless	Vapor Density	No data available
Odor Threshold	No data available.	Relative Density	~ 1g/mL
pH	5.5 – 6.5	Solubility	No data available
Melting / Freezing Point	~0°C.	Partition Coefficient	No data available
Boiling Point / Range	<100 @ 760 mm Hg	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

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

There are no known reactivity hazard for these concentrations when handling the product according to its intended use.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of hazardous reactions

Will not polymerize.

10.4 Conditions to avoid.

Avoid exposure to high temperatures, or direct sunlight.

10.5 Incompatible Materials

Strong alkalis, acid anhydrides, strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon oxides, nitrogen oxides (Nox), Hydrogen cyanide (Hydrocyanic acid), Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

LD50 Oral (mouse) – 1834 mg/kg

LC50 Inhalation (rat) - >3900 ppm.

Skin Corrosion / Irritation

Not determined.

Serious Eye Damage / Irritation

Not determined.

Respiratory or Skin Sensitization

Not determined.

Germ Cell Mutagenicity

Not determined.

Carcinogenicity

Not determined.

Reproductive Toxicity

Not determined.

Specific Target Organ Toxicity - Single Exposure

Not determined.

Specific Target Organ Toxicity - Repeated Exposure

Not determined

Aspiration Hazard

Not determined.

Symptoms / Routes of Exposure

Inhalation: In high concentrations, vapors may irritate throat and respiratory system and cause coughing.

Ingestion: Harmful if swallowed. Skin and/or eye.

Skin: May cause skin irritation. Not a skin sensitizer

Eyes: Spray and vapor in the eyes may cause irritation and smarting

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

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

Miscible in water. May spread in water ways.

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**Product**

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

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

H271; Combustible liquid

H302 + H332: Harmful if swallowed; harmful if inhaled.

H314; Causes severe skin burns and eye damage.

H315; Causes skin irritation.

H319; Causes serious eye irritation.

H335; May cause respiratory irritation.

R22; Harmful if swallowed.

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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