



MicroGEM International PLC

University of Southampton Science P,
The Innovation Centre
2 Venture Rd,
SOUTHAMPTON, SO167NP
United Kingdom

Email: info@microgembio.com
Web: www.microgembio.com

Safety Data Sheet

A MicroGEM International PLC Product

SECTION 1: PRODUCT

Product Name	RNAGEM V
Generic Name	NA
Synonyms	NA
Product Description	RNA extraction kit. For research use only
REACH Registration number	A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration.
CAS #	NA – mixture
Date of Revision	July 2019
Company Support	Email: info@microgembio.com
Supplier Details in NZ	MicroGEM NZ Ltd., Subsidiary of MicroGEM International PLC 201 Princes Street, Level 1, Stanton Building, Dunedin, New Zealand Emergency telephone: +64 0800-764-766 (National Poison Centre)
Supplier Details in USA	MicroGEM US Ltd., Subsidiary of MicroGEM International PLC 705D Dale Avenue, Charlottesville, VA 22903, USA Emergency telephone: +1-800-222-1222 (National Poison Centre)
Supplier details in UK	MicroGEM UK Ltd. Innovation Centre, Southampton Science Park, Venture Road, Southampton, SO16 7NP, UK Emergency Telephone +44 (0) 344-892-0111 Office Telephone + 44 (0) 7979694343
Manufacturer Details in China	MicroGEM CN Ltd Co., Subsidiary of MicroGEM International PLC Floor3, No.32 Canluan Road, Qixing District, Guilin City, China Phone +86 0773-363-6602 Emergency telephone: +86-07715319955 (National Poison Centre)

SECTION 2: HAZARD IDENTIFICATION

Emergency Overview: Appearance: Two separate clear liquids. **Warning!** May be irritating to eyes, skin, digestive tract or respiratory tract.
For *in vitro* use only.

HMIS HEALTH	1
HMIS FLAMMABILITY	0
HMIS REACTIVITY	0
PERSONAL PROTECTION	C

OSHA Regulatory Status: This material is **not** considered hazardous under the OSHA standard or WHMIS.

Potential Health Effects:

Inhalation:	Inhalation of liquid or mist may be irritating to the respiratory tract.
Ingestion:	May cause irritation of the digestive tract.
Skin Contact:	May cause skin irritation.
Eye Contact:	May cause eye irritation.
Chronic Exposure:	Repeated or prolonged exposure may cause allergic reactions in sensitive individuals.
Aggravation of Preexisting Conditions:	No information available.
Target Organs:	No information available.
Pictograms:	



Irritant

RNAGEM: HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Resp. Sens. 1
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1

Kit Component	Contains	CAS #	Weight %
RNAGEM	EA1 Enzyme – Proteinase Glycerol	Proprietary 56-81-5	0.1-0.2 18-23
Blue Buffer	Non hazardous	Proprietary	

Non-hazardous components may or may not be listed. Carcinogens are listed when present at 0.1% or more; components which are otherwise hazardous according to OSHA are listed when present at 1.0% or more. This is not intended to be complete compositional disclosure. See Section 15 for applicable states right to know and other regulatory information.

Some reagents are Trade Secrets as permitted under USA: 29 CFR 1910.1200, Canadian CPR Sections 12 and 19, European Union Directive 1999/45/EC. All such reagents are highly purified enzymes from non-pathogenic organisms. These reagents are at concentrations of < 1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Kit includes two separate clear liquids as follows:

Product:	Catalog codes	Total solution volume per kit	Kit Includes:
RNAGEM V	RTV0050 RTV1000	1.1ml 17.1 ml	<ul style="list-style-type: none">RNAGEM Enzyme solutionBuffer Blue solution

SECTION 4: FIRST AID MEASURES

Inhalation:	Remove to fresh air. Not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:	Drink several glasses of water or milk. Never give anything by mouth to an unconscious person. Get medical attention.
Skin:	Immediately flush skin with plenty of water for at least 15 minutes. Get medical attention if irritation develops.
Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
Note to Physicians:	N/A

SECTION 5: Fire Fighting Measures

Fire:	Flash point: Not flammable.
Explosion:	Not considered an explosion hazard.
Extinguishing Media:	Use appropriate media for the surrounding fire.
Special Precautions:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
NFPA Rating:	Health - 1 Flammability -01 Reactivity - 0 Other – NA

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Wash contaminated area with plenty of water.

SECTION 7: HANDLING AND STORAGE

Keep in a tightly closed container. This product can be stored at 4°C. Once opened store at -20°C. Protect material from long-term exposure to light. Short periods of exposure to light are acceptable.

SECTION 8: EXPOSURE CONTROL/ PERSONAL PROTECTION

Exposure Guidelines:	No exposure limits established for contained materials.
Skin and body Protection:	lightweight protective clothing. Wear protective gloves and handle in accordance with good industrial hygiene and safety practice
Eye Contact:	Safety glasses with side-shields.
Inhalation:	In case of insufficient ventilation wear suitable respiratory equipment.
Engineering Controls:	Ensure adequate ventilation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	This product is stable in closed containers at room temperature.
Hazardous Decomposition Products:	Carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ , N ₂ O), hydrogen chloride
Incompatibilities:	Strong oxidizers, heat
Conditions to Avoid:	Incompatible materials, combustible materials.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Dose Effects:	All components are very dilute.
Carcinogenicity:	Not listed by OSHA, NTP or IARC.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate:	This product is not expected to bioaccumulate. When released into water or air its expected half-life is 1- 10 days.
Ecotoxicity:	Dilute nature and small volumes of products makes any ecological effect highly unlikely.

SECTION 13: DISPOSAL CONSIDERATIONS

As a waste, this material in its raw form IS NOT considered a HAZARDOUS WASTE under RCRA (29 CFR 261).

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name:	Not regulated by DOT, TDG, IATA, IMDG
DOT Hazard Class:	N/A
UN Number:	N/A
Packing Group:	N/A
CERCLA Reportable Quantity (RQ):	N/A

Releases exceeding the reportable quantity (RQ) must be reported to the National Response Center **(800) 424-8802**.

This data provided for information only. The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate regulations to properly classify your shipment for transportation.

SECTION 15: REGULATORY INFORMATION

TSCA Chemical Inventory: All of the chemicals in this product are listed on the TSCA Inventory.

TSCA Sec 4 Chemical Test Rule: None of the chemicals in this product are under a Chemical Test Rule.

TSCA Sec 8(d): None of the chemicals in this product are on the Health and Safety Reporting List.

TSCA Sec 12(b) Notices of Export: None of the chemicals in this product are on this list.

TSCA Significant New Use Rule (SNUR): None of the chemicals in this product are on this list.

SARA Sec 302 (EHS) TPQ: None of the chemicals in this product have a TPQ.

SARA Sec 302 (EHS) RQ: None of the chemicals in this product have a RQ.

SARA Sec 311/312: Acute – NO; Chronic – NO; Fire – NO; Release of Pressure – NO; Reactivity – NO

SARA 313 List: No materials in this product are reportable under Section 313 Title III and 40 CFR Part 372.

CERCLA Hazardous Substances and corresponding RQs: N/A

RCRA: None of the chemicals in this product are on this list.

Clean Air Act: Hazardous Air Pollutants? NO **Class 1 Ozone Depletors?** NO **Class 2 Ozone Depletors?** NO

Clean Water Act: Hazardous Substance? NO **Priority Pollutant?** NO **Toxic Pollutant?** NO

Chemical Weapons Convention: None of the chemicals in this product are on this list.

Drug Enforcement Agency (DEA) CDTA: None of the chemicals in this product are on this list.

OSHA: None of the chemicals in this product are considered Highly Hazardous by OSHA.

State Right-to-Know Lists: None of the materials in this product are found on the Right-to-Know lists of California, Florida, New Jersey, Pennsylvania, Massachusetts or Minnesota.

Canada

All materials are listed on Canada's DSL List. One compound is listed on Canada's Ingredient Disclosure List, but below the *de minimus* concentration.

WHMIS: Not WHMIS controlled.

This product has been classified in accordance with the hazard criteria of the **Controlled Products Regulations** and the MSDS contains all the information required by the **Controlled Products Regulations**.

European Union

Hazard Symbols: Xi
Risk Phrases: R36/38- Irritating to eyes and skin.
Safety Phrases: S1/2 Keep locked up and out of the reach of children.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39 Wear suitable gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46 If swallowed, seek medical advice immediately and show this container or label.

REACH Registration Number: Not available.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms used:

ACGIH	American Conference of Governmental Industrial Hygienists	NA	not applicable, not available
ANSI	American National Standards Institute	NIOSH	National Institute for Occupational Safety and Health
atm	atmosphere (pressure unit)	ND	not determined
BOD	biological oxygen demand	NFPA	National Fire Prevention Association
CAS	Chemical Abstracts Service	NTP	National Toxicology Program
CC	closed cup	OC	open cup
CDTA	Chemical Drug and Trafficking Act	OSHA	Occupational Safety and Health Administration
COC	Cleveland Open Cup	Part	partition
COD	chemical oxygen demand	PEL	permissible exposure limits
coeff.	coefficient	ppb	parts per billion
CFR	Code of Federal Regulations	PPE	personal protective equipment
CPR	cardio-pulmonary resuscitation	ppm	parts per million
DEA	Drug Enforcement Agency	psi	pounds per square inch
DOT	Department of Transportation	RCRA	Resource Conservation and Recovery Act
FDA	Food and Drug Administration	RQ	Reportable quantity
IARC	Internat'l Agency for Research on Cancer	RTK	Right to Know
IDLH	immediate danger to life and health	SARA	Superfund Amendments and Reauthorization Act
kg	kilogram	STEL	short-term exposure limit
L	liter	TCC	Tagliabue Closed Cup
LC50	median lethal concentration	TPQ	threshold planning quantity
LD50	median lethal dose	TQ	threshold quantity
LEL	lower explosive limit	TSCA	Toxic Substances Control Act
mg	milligram	TWA	time-weighted average
mL	milliliter	WHMIS	Workplace Hazardous Materials Information System

This document was prepared in accordance with 29 CFR 1910.1200 and ANSI Z400.1-2004.

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