

MATERIAL SAFETY DATA SHEET

According to EC Directive 1907/2006
Revision Date: 04.05.15 MS-52083 V01



A Meridian Life Science® Company

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Trade Name : ISOLATE II microRNA Kit
Catalogue Number : BIO-52083 25 preps
Manufacturer/ Supplier: Headquarters
Bioline Reagents Ltd.
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Other regions

Please contact the UK headquarters

24-Hour contact in case of emergency : Vergiftungs-Informationen-Zentrale
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2. HAZARD IDENTIFICATION

Product name	Directive 1999/45/EC	GHS Directive 1272/2008/EC
RNA Elution Buffer	Does not need labelling as hazardous	Does not need labelling as hazardous
Wash Buffer W1	Does not need labelling as hazardous	Does not need labelling as hazardous
DNase I Reaction Buffer DRB	Does not need labelling as hazardous	Does not need labelling as hazardous
Lysis Buffer RX	Does not need labelling as hazardous	DANGER  H302 – Acute Tox. 4 oral H312 – Acute Tox. 4 dermal H332 – Acute Tox. 4 inhale H412 – Aquatic Chronic 3 EUH032 – Contact with acids liberates very toxic gas
RNase-free DNase I Solution	HARMFUL  R42/43 – May cause sensitisation by inhalation and skin contact	WARNING  H317 – Skin Sens. 1A/1B H334 – Resp. Sens. 1A/1B

According to Regulation (EC) No1272/2008
 Skin Sensitivity (Category 1A/1B)
 Respiratory Sensitivity (Category 1A/1B)
 Acute Toxicity, Oral (Category 4)
 Eye Irritant (Category 2)
 Specific Target Organ Toxicity – Single Exposure (Category 3)

According to European Directive 67/548/EEC as amended.
 C – Corrosive.
 Xn – Harmful.
 Xi – Irritant. Irritating to eyes. May cause sensitisation by inhalation and skin contact.

Label elements

Pictogram



Signal word

Warning
 Danger

Hazard statement(s)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412	Harmful to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

Precautionary statement(s)

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P342+311	If experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.

Hazard symbol(s)

Xi	Irritant
Xn	Harmful
C	Corrosive

R-phrases(s)

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R32	Contact with acids liberates very toxic gas.
R34	Causes burns.
R36	Irritating to eyes.
R42/43	May cause sensitization by inhalation and skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

S22	Do not breathe dust.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)..
S61	Avoid release to the environment.

Other hazards

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixture of hazardous substances listed below with non-hazardous additions.

Chemical name	CAS-No.	EC-No.	Concentration	Classification
Lysis Buffer RX				
Guanidine thiocyanate	593-84-0	209-812-1	30-60%	H302; H312; H332; H412; Xn; R20/21/22; R32; R52/53
RNA Elution Buffer				
Declaration not required	n/a	n/a	0.1-1%	n/a
Wash Buffer W1				
Declaration not required	n/a	n/a	0.1-1%	n/a

DNase I Reaction Buffer DRB				
Declaration not required	n/a	n/a	0.1-1%	n/a
DNase I Solution (RNase-free)				
DNase I	9003-98-9	232-667-0	90-100%	Skin Sens. 1A/1B; Resp. Sens. 1A/1B; H317; H334; R42/43

4. FIRST AID MEASURES

After Inhalation

Remove to fresh air. Keep airways free.

After Swallowing

Drink lots of water after ingestion.

After Contact with Eyes

Immediately flush eyes with copious amounts of water for at least 20 minutes, retracting eyelids often. Tilt the head to prevent chemical transferring to uncontaminated eye.

After Contact with Skin

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. Use soap if possible.

Note to Physician

No additional recommendations

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

All extinguishers can be used, including fire blankets.

Unusual Fire Hazard

Formation of hazardous and caustic vapour-air mixtures possible. Only when there is a large scale leak is there danger to the environment, or on the formation of hazardous substances.

Fire Fighting Protective Measures

Wear full protective clothing to prevent contact with the skin and eyes.

Wear self-contained breathing equipment to prevent inhalation of explosive or combustion gases. Fight fire from a safe distance and a protected location due to the potential of hazardous vapours and decomposition products. Product package burns like paper or plastic. Spray vapours with water. Retain fire water. Use only acid-resistant safety equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure ventilation is adequate. Only to be used by trained staff.
Refer to section 8 for personal protection equipment recommendations.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Clean-up Measures

Prevent the spread of any spill in order to minimise harm to human health and the environment if it is safe to do so. Use a liquid-binding material (e.g. sand, sawdust, diatomite etc.) to absorb the spillage. Place in closed containers for disposal. Ventilate area well after clean-up procedures have taken place.

7. HANDLING AND STORAGE

Handling

In accordance with the instructions that come with the product. Avoid inhalation of vapour or mist. Use good laboratory handling procedures.

Storage

Packaging allows safe storage. Do not store near acids. Refer to section 12 for further details.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures

Local exhaust ventilation or other engineering controls are normally required when handling this product to avoid overexposure.

Personal Protection

Respiratory Protection: Only if additional recommendations in test instruction or packing insert.

Eye Protection: An eye wash station must be available where this product is used. Wear chemically resistant, tightly fitting safety goggles or glasses with side-shields, according to EN 166.

Skin Protection: Prevent all contact with this product. Protective gloves, apron, face and further skin protection should be used depending on conditions of use, according to EN 374. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment thoroughly after each use.

Hygiene Practices: Avoid contact with skin or eyes. Do not place in mouth. Do not eat, drink or smoke when handling this product. Upon completion of the use of this product, dispose of protective gloves safely and wash hands thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

	Colour	Odour	Appearance	pH	Flash point	Sol. In water
Wash Buffer W1	Colourless	Odourless	Liquid	7.5	NA	Soluble
Lysis Buffer RX	Colourless	Odourless	Liquid	7.0	NA	Soluble
RNA Elution Buffer	Colourless	Odourless	Liquid	7.0	NA	Soluble
DNase I Solution	Colourless	Odourless	Liquid	5-7	NA	Soluble
DNase I Reaction Buffer DRB	Colourless	Odourless	Liquid	7.5	NA	Soluble

10. STABILITY AND REACTIVITY

Stability

Product is stable under normal handling and storage conditions.

Avoid excess heat, flame and pressure.

Thermal decomposition: None if used under ordinary conditions.

Conditions to avoid: Strong acids, strong oxidising agents, high temperatures, visible light, acids, temperatures above flash point in combination with sparks, open flames, or other sources of ignition. Metals (ferrous) and isocyanates should also be avoided.

Reactivity

Dangerous Reactions: See conditions to avoid in stability section.
 Hazardous decomposition products: Ammonia, nitrogen oxides, sulphur containing gases, hydrogen cyanide, carbon monoxide, carbon dioxide, toxic gases.
 Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

	Lysis Buffer RX
	Guanidine thiocyanate 593-84-0
LD50 _{ori rat}	593 mg/kg
LD50 _{inh rat}	-
LD50 _{drm rbt}	-
LD _{LoW} _{inh gpg}	-
LD _{LoW} _{ori hmn}	-
LD50 _{inh mouse}	-
LD50 _{oral mouse}	-
LD50 _{intrapitoneal rat}	-
LD50 _{intrapitoneal mouse}	-

Data on other components is either not available or not required.

12. ECOLOGICAL INFORMATION

	Lysis Buffer RX
Bio Toxicity	Guanidine thiocyanate 593-84-0
LC50 _{fish 96h}	Acute LC50 89.1 mg/l
EC50 _{daphnia/48h}	Acute EC50 42.4 mg/l

Data on other components is either not available or not required.

13. DISPOSAL CONSIDERATIONS

Product Disposal

Must be disposed of according to all local official regulations (waste code: 16 05 06).

Packaging Disposal

Unclean packaging should be disposed of according to all local official regulations.

14. TRANSPORT INFORMATION

14.1 UN number		
ADR/RID: 1760	IMDG: 1760	IATA: 1760
14.2 UN proper shipping name		
ADR/RID: CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)		
IMDG: CORROSIVE LIQUID, N.O.S. (Guanidinium thiocyanate)		
IATA: Corrosive liquid, n.o.s. (Guanidinium thiocyanate)		
14.3 Transport hazard class(es)		
ADR/RID: 8	IMDG: 8	IATA: 8
14.4 Packaging group		
ADR/RID: 8	IMDG: 8	IATA: 8
14.5 Environmental hazards		
ADR/RID: III	IMDG: III	IATA: III

15. REGULATORY INFORMATION

This safety sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Label elements

Pictogram



Signal word

Warning
Danger

Hazard statement(s)

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S36/37/39

Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible)..

S61

Avoid release to the environment.

Other hazards

None

16. OTHER INFORMATION

The information provided in this Material Safety Data Sheet (MSDS) is accurate to the best of our present knowledge. However, this shall not constitute a guarantee for any specific product features. All substances and preparations may present unknown hazards and should be used with caution. Bioline shall not be held liable for any damage resulting from the handling of or from contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.