

MATERIAL SAFETY DATA SHEET

According to EC Directive 1907/2006
Revision Date: 12.10.12 MS-50126 V01



A Meridian Life Science® Company

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

Trade Name : ISOLATE II RNA Plant Kit

Catalogue Number : BIO-52076 10 preps
BIO-52077 50 preps

Manufacturer/ Supplier: Headquarters

Bioline Reagents Ltd.
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Australia







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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
Lysis Buffer RLY	Does not need labelling as hazardous	WARNING  EUH031 – Contact with acids liberates toxic gas H302 – Acute Tox. 4 oral H412 – Aquatic Chronic 3
Wash Buffer RLS	Does not need labelling as hazardous	WARNING  H302 – Acute Tox. 4 oral H315 – Skin Irrit. 2 H319 – Eye Irrit. 2
Wash Buffer RW1	Does not need labelling as hazardous	WARNING  EUH031 – Contact with acids liberates toxic gas H226 – Flam. Liq. 3 H302 – Acute Tox. 4 oral H412 – Aquatic Chronic 3
Wash Buffer RW2 (Concentrate)	Does not need labelling as hazardous	Does not need labelling as hazardous
Membrane Desalting Buffer MEM	Does not need labelling as hazardous	WARNING  H226 – Flam. Liq. 3
Reaction Buffer for DNase I RDN	Does not need labelling as hazardous	Does not need labelling as hazardous
RNase-free DNase I (lyophilized)	HARMFUL 	DANGER  H317 – Skin Sens. 1A/1B H334 – Resp. Sens. 1A/1B
RNase-free Water	Does not need labelling as hazardous	Does not need labelling as hazardous

According to Regulation (EC) No1272/2008

Acute Toxicity, Oral (Category 4)
 Chronic aquatic toxicity (Category 3)
 Skin Irritation (Category 2)
 Eye Irritation (Category 2)
 Flammable liquid (Category 3)
 Skin Sensitivity (Category 1A/1B)
 Respiratory Sensitivity (Category 1A/1B)

According to European Directive 67/548/EEC as amended.
 Xn – Harmful. May cause sensitisation by inhalation and skin contact.

Label elements

Pictogram



Signal word

Warning

Danger

Hazard statement(s)

H226

Flammable liquid and vapour

H302

Harmful if swallowed

H315

Causes skin irritation

H319

Causes serious eye irritation

H317

May cause an allergic skin reaction

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled

H412

Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P261S

Avoid breathing dust

P280sh

Wear protective gloves/eye protection

P302+352

IF ON SKIN: Wash with plenty of soap and water

P304+341

IF INHALED: If breathing is difficult, remove 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)

Xn

Harmful

R-phrases(s)

R10

Flammable

R20/21/22

Harmful by inhalation, in contact with skin and if swallowed

R32

Contacts with acids liberates very toxic gas

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)

S22-26-36/37

Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves

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 RLY				
Guanidinium thiocyanate	593-84-0	209-812-1	30-60%	H302; H412; EUH031; R20/21/22-32- 52/53
Lysis Buffer RLS				
Guanidine hydrochloride	50-01-1	200-002-3	50-66%	H302; H315; H319
Wash Buffer RW1				
Guanidinium thiocyanate	593-84-0	209-812-1	30-60%	H302; H412; EUH031; R20/21/22-32- 52/53
Ethanol (denatured)	64-17-5	200-578-6	20-35%	H226; R10
Membrane Desalting Buffer MEM				
Guanidinium thiocyanate	593-84-0	209-812-1	30-60%	H302; H412; EUH031; R20/21/22-32- 52/53
Ethanol (denatured)	64-17-5	200-578-6	20-35%	H226; R10
RNase-free DNase I (lyophilized)				
rDNase	9003-98-9	-	90-100%	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

Rinse eyes with running water with eyelids open. 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 of

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

Allow into drains only in small amounts with copious amounts of water.

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. Use good laboratory handling procedures.

Storage

Packaging allows safe storage. 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.

Ingredients with Limit Values

No limits available.

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	Boiling point	Sol. In water	Specific Gravity
Lysis Buffer RLY	Colourless	Odourless	Liquid	6.5-7.5	-	-	-	1.13g/cm ³
Lysis Buffer RLS	Colourless	Odourless	Liquid	4.5-5.0	-	-	-	1.18g/cm ³
Wash Buffer RW1	Colourless	Alcoholic	Liquid	7.0-7.5	28°C	-	-	1.03g/cm ³

Wash Buffer RW2	Colourless	Odourless	Liquid	7-8	-	-	-	1.00g/cm ³
Membrane Desalting Buffer MEM	Colourless	Alcoholic	Liquid	6.7-7.2	55°C	-	-	1.01g/cm ³
Reaction Buffer for DNase I	Colourless	Odourless	Liquid	6.5-7.5	-	-	-	1.01g/cm ³
RDN RNase-free water	Colourless	Odourless	Liquid	6-8	-	-	-	1.00g/cm ³
RNase-free DNase I (lyophilized)	White	Odourless	Solid (lyoph)	-	-	-	-	-

10. STABILITY AND REACTIVITY

Stability

In original packaging all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

Reactivity

Can form reactive substances with oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

	Lysis Buffer RLY	Lysis Buffer RLS	Wash buffer RW1		Membrane Desalting Buffer MEM	
	Guanidinium thiocyanate 593-84-0	Guanidine hydrochloride 50-01-1	Guanidinium thiocyanate 593-84-0	Ethanol 64-17-5	Guanidinium thiocyanate 593-84-0	Ethanol 64-17-5
LD50 _{ori rat}	593 mg/kg	475 mg/kg	593 mg/kg	6200 mg/kg	593 mg/kg	6200 mg/kg
LD50 _{pr mus}	300 mg/kg	-	300 mg/kg	-	300 mg/kg	-
LD50 _{hi rat}	-	5.3 _{4h} mg/m ³	-	20 _{10h} g/m ³	-	20 _{10h} g/m ³
LD50 _{hm rbt}	-	>2000 mg/kg	-	20 g/kg	-	20 g/kg
LD50 _{hi mouse}	-	-	-	39 _{4h} g/m ³	-	39 _{4h} g/m ³
LD50 _{ori mouse}	-	-	-	3450 mg/kg	-	3450 mg/kg
LC _{LoW_{ori hmn}}	-	-	-	1400 mg/kg	-	1400 mg/kg
LC _{LoW_{hi apa}}	-	-	-	21.9 g/m ³	-	21.9 g/m ³

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

12. ECOLOGICAL INFORMATION

	Lysis Buffer RLY	Lysis Buffer RLS	Wash Buffer RW1		Wash Buffer RW2	Membrane Desalting Buffer MEM		Reaction buffer for DNase I RDN	RNase-free DNase I (Iyo)	RNase free Water
	Guanidinium thiocyanate 593-84-0	Guanidine hydrochloride 50-01-1	Guanidinium thiocyanate 593-84-0	Ethanol 64-17-5	<1% no declaration necessary	Guanidinium thiocyanate 593-84-0	Ethanol 64-17-5	<2% no declaration necessary	rDNase 9003-98-9	Water 7732-18-5
WGK (DE)	3	1	3	1	1	3	1	1	1	-
Storage class (VCI)	12	12	12	3 A	12	12	3 A	12	13	-
WGK No.	-	0788	-	0096	-	-	0096	-	n.n	-
LC50 _{asphn a magna/48h}	-	-	-	>100 mg/L	-	-	>100 mg/L	-	-	-
EC50 _{asphn ia /48h}	-	-	-	2/9.3/>100 mg/L	-	-	2/9.3/>100 mg/L	-	-	-
Bio Toxicity	-	3/2.6/2.2-3.4	-	-	-	-	-	-	-	-

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

Class 3 III, **excepted quantities** (≤30ml/Σ≤1L) = ADR/IATA E1

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)

H226	Flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H412	Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P261S	Avoid breathing dust
P280sh	Wear protective gloves/eye protection
P302+352	IF ON SKIN: Wash with plenty of soap and water
P304+341	IF INHALED: If breathing is difficult, remove 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)

Xn Harmful

R-phrases(s)

R10	Flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R32	Contacts with acids liberates very toxic gas
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-phrase(s)

S22-26-36/37 Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves

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.