

MATERIAL SAFETY DATA SHEET

According to EC Directive 1907/2006
Revision Date: 03.08.12 MS-50121 V01



A Meridian Life Science® Company

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

Trade Name : ISOLATE II Plant DNA Kit

Catalogue Number : BIO-52068 10 preps
BIO-52069 50 preps
BIO-52070 250 preps

Manufacturer/ Supplier: Headquarters

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Other regions

Please contact the UK headquarters

24-Hour Contact in case of emergency : Vergiftungs-Informations-Zentrale
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2. HAZARD IDENTIFICATION

Product name	Directive 1999/45/EC	GHS Directive 1272/2008/EC
Lysis Buffer PA1	Does not need labelling as hazardous	Does not need labelling as hazardous
Lysis Buffer PA2	Does not need labelling as hazardous	Does not need labelling as hazardous
Precipitation Buffer PA3	Does not need labelling as hazardous	Does not need labelling as hazardous
Binding Buffer PB	Does not need labelling as hazardous	WARNING 
		H226 – Flam. Liq 3 H302 – Acute Tox. 4 oral
Wash Buffer PAW1	IRRITANT 	WARNING 
	R36 – Irritating to eyes	H226 – Flam. Liq 3 H302 – Acute Tox. 4 oral H319 – Eye Irrit. 2 H336 – STOT SE 3
Wash Buffer PAW2 (Concentrate)	Does not need labelling as hazardous	Does not need labelling as hazardous
Elution Buffer PG	Does not need labelling as hazardous	Does not need labelling as hazardous
RNase A (lyophilized)	HARMFUL 	WARNING 
	R42/43 – May cause sensitisation by inhalation and skin contact	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)
 Flammable Liquid (Category 3)
 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.
 Xi – Irritant. Irritating to eyes. May cause sensitisation by inhalation and skin contact.

Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic reaction.
H319	Causes serious eye irritation.

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.
Precautionary statement(s)	
P261S	Avoid breathing dust.
P280sh	Avoid release to the environment.
P302+352	Wear protective gloves/protective clothing/eye protection/face protection.
P304+341	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+313	Immediately call a POISON CENTER or doctor/physician.
P342+311	IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
Hazard symbol(s)	
Xi	Irritant
R-phrase(s)	
R36	Irritating to eyes.
R42/43	May cause sensitization by inhalation and skin contact.
S-phrase(s)	
S16	Keep away from sources of ignition – No smoking.
S22	Do not breathe dust.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39	Wear eye/face protection.
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 PA1				
Sodium chloride	7647-14-5	231-598-3	1-10%	n/a
Lysis Buffer PA2				
Sodium chloride	7647-14-5	231-598-3	1-10%	n/a
Precipitation Buffer PA3				
Acetate Buffer solution	-	-	25-60%	n/a
Binding Buffer PB				
Guanidine hydrochloride	50-01-1	200-002-3	24-36%	Acute Tox. 4 oral; H302; R22
Ethanol (denatured)	64-17-5	200-578-6	35-55%	Flam. Liq. 3; H226; R10
Wash Buffer PAW1				
Guanidine hydrochloride	50-01-1	200-002-3	36-50%	Acute Tox. 4 oral; Eye Irrit. 2; H302; H319; R22-36
2-propanol	67-63-0	200-661-7	20-50%	Flam. Liq. 3; Eye Irrit. 2; STOT SE 3; H226; H319; H336; R10-36-67

Wash Buffer PAW2 (Concentrate)				
Declaration not required	n/a	n/a	0.1-1%	n/a
RNase A (lyophilized)				
RNase	9001-99-4	232-646-6	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

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

	Ethanol	2-propanol
CAS No.	64-17-5	67-63-0
TRGS 900 (DE)	500 ppm / 960 mg/m ³	200 ppm / 500 mg/m ³
Short term exposure factor	2 (II)	2 (II)
SUVA(CH) MAK value	500 ppm / 960 mg/m ³	200 ppm / 500 mg/m ³
TRGS 903 (DE)	-	B/b, U/b 50 _{Aceton} µg/L
TRGS 905 (DE)	K5, M5, R _F C	R _F C
NIOSH REL	-	500 ppm
NIOSH STEL	-	1225 mg/m ³
OSHA PEL	1000 ppm	400 ppm; 980 mg/m ³

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
Lysis Buffer PA1	Colourless	Odourless	Liquid	7.5-8.5	-	-
Lysis Buffer PA2	Colourless	Odourless	Liquid	7.5-8.5	-	-
Precipitation Buffer PA3	Colourless	Acetic	Liquid	5-6	-	-
Binding Buffer PB	Yellow	Alcoholic	Liquid	5-7	20°C	-
Wash Buffer PAW1	Colourless	Alcoholic	Liquid	7-8	25°C	-
Wash Buffer PAW2 (Concentrate)	Colourless	Odourless	Liquid	7-8	-	-
Elution Buffer PG	Colourless	Odourless	Liquid	8-9	-	-
RNase A (lyophilized)	Colourless	Odourless	Liquid	-	-	0-100%

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 oxidising agents, high temperatures, visible light, acids, temperatures above flash point in combination with sparks, open flames, or other sources of ignition. Metals (ferrous), strong acids 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

	Binding buffer PB		Lysis buffer PA1	Lysis buffer PA2	Wash buffer PAW1		RNase A
	Guanidine hydrochloride 50-01-1	Ethanol 64-17-5	Sodium chloride 7647-14-5	Sodium chloride 7647-14-5	Guanidine hydrochloride 50-01-1	2-propanol 67-63-0	RNase 9001-99-4
LD50 _{ori rat}	475 mg/kg	6200 mg/kg	3000 mg/kg	3000 mg/kg	475 mg/kg	5045 mg/kg	-
LD50 _{inh rat}	5.3 _{4h} mg/m ³	20 _{10h} g/m ³	-	-	5.3 _{4h} mg/m ³	16 g/m ³ /4h	-
LD50 _{drm rbt}	>2000 mg/kg	20 g/kg	10 g/kg	10 g/kg	>2000 mg/kg	12.8 g/kg	-
LD _{LoW} _{inh gpd}	-	21.9 g/ml ³	-	-	-	-	-
LD _{LoW} _{orl hmn}	-	1400 mg/kg	-	-	-	3570 mg/kg	-
LD50 _{inh mouse}	-	39 _{4h} g/m ³	-	-	-	-	-
LD50 _{oral mouse}	-	3450 mg/kg	-	-	-	-	-
LD50 _{intrapitoneaal rat}	-	-	-	-	-	-	392 mg/kg

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

12. ECOLOGICAL INFORMATION

	Binding buffer PB		Wash buffer PAW1	
	Guanidine hydrochloride 50-01-1	Ethanol 64-17-5	Guanidine hydrochloride 50-01-1	2-propanol 67-63-0
Bio Toxicity	3/2.6/2.2-3.4	-	3/2.6/2.2-3.4	-
LD50 _{daphnia magna/48h}	-	>100 mg/L	-	-
EC50 _{daphnia/48h}	-	3/9.3/>100 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

ADR/RID/IATA

Proper shipping name	n-propanol
Hazard Class	3
Subsidiary Hazards ID Number	UN1274
Packaging group	III
	Flammable liquid

ADR/RID/IATA

Proper shipping name	Ethanol solution
Hazard Class	3
Subsidiary Hazards ID Number	UN1170
Packaging group	III
	Flammable liquid

15. REGULATORY INFORMATION

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

Label elements

Pictogram



Signal word

Warning

Hazard statement(s)

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.

Precautionary statement(s)

P261S	Avoid breathing dust.
P280sh	Avoid release to the environment.
P302+352	Wear protective gloves/protective clothing/eye protection/face protection.
P304+341	IF IN EYES: Rinse cautiously with water for

P333+313

several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P342+311

IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

P363

Hazard symbol(s)

Xi

Irritant

R-phrases(s)

R36

Irritating to eyes.

R42/43

May cause sensitization by inhalation and skin contact.

S-phrases(s)

S16

Keep away from sources of ignition – No smoking.

S22

Do not breathe dust.

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S39

Wear eye/face protection.

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.