

# MATERIAL SAFETY DATA SHEET

According to EC Directive 1907/2006  
Revision Date: 11.10.12 MS-50118 V01



A Meridian Life Science® Company

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

Trade Name : ISOLATE II Genomic DNA Kit

Catalogue Number : BIO-52065 10 preps  
BIO-52066 50 preps  
BIO-52067 250 preps

Manufacturer/ Supplier: Headquarters  
  
Bioline Reagents Ltd.  
16 The Edge Business Centre  
Humber Road  
London  
NW2 6EW  
[info.uk@bioline.com](mailto:info.uk@bioline.com)  
Tel: +44 (0)20 8830 5300  
Fax: +44 (0)20 8452 2822

Further Information Obtainable from: **Europe**  
  
UK - details as above  
  
Germany  
[info.de@bioline.com](mailto:info.de@bioline.com)  
Tel: +49 (0)3371 681 229  
Fax: +49 (0)3371 681 244







**America**  
  
[info.us@bioline.com](mailto:info.us@bioline.com)  
Tel: +1 508 880 8990  
Fax: +1 508 880 8993

**Australia**  
  
[info.aust@bioline.com](mailto:info.aust@bioline.com)  
Tel: +61 (0)2 9209 4180  
Fax: +61 (0)2 9209 4763

**Other regions**  
  
Please contact the UK headquarters

24-Hour Contact in case of emergency : Vergiftungs-Informationen-Zentrale  
Mathilden Strasse 1  
79106 Freiburg  
GERMANY  
Tel: +49 (0) 761 19240

## 2. HAZARD IDENTIFICATION

Product name	Directive 1999/45/EC	GHS Directive 1272/2008/EC
Buffer G1	IRRITANT 	WARNING 
	R36/38 – Irritating to eyes and skin	H302 – Acute Tox. 4 oral H315 – Skin Irrit. 2 H319 – Eye Irritant. 2
Buffer G2	Does not need labelling as hazardous	Does not need labelling as hazardous
Wash Buffer GW1	IRRITANT 	WARNING 
	R36 – Irritating to eyes	H226 – Flam. Liq. 3 H302 – Acute Tox. 4 oral H319 – Eye Irritant. 2 H336, H335 – STOT SE 3
Wash Buffer GW2	Does not need labelling as hazardous	Does not need labelling as hazardous
Elution Buffer G	Does not need labelling as hazardous	Does not need labelling as hazardous
Proteinase K (lyophilized)	HARMFUL 	DANGER 
	R42 – May cause sensitization by inhalation	H315 – Skin Irrit. 2 H317 – Skin Sens. 1A/1B H319 – Eye Irritant. 2 H334 – Resp. Sens. 1A/1B H335 – STOT SE 3
Proteinase Buffer PR	Does not need labelling as hazardous	Does not need labelling as hazardous
Lysis Buffer GL	Does not need labelling as hazardous	Does not need labelling as hazardous

According to Regulation (EC) No1272/2008

Acute Toxicity, Oral (Category 4)

Skin Irritant (Category 2)

Eye Irritant (Category 2)

Flammable liquid (Category 3)

Acute Toxicity, Oral (Category 4)

Specific target organ toxicity, single exposure (Category 3)

Skin Sensitivity (Category 1A/1B)

Respiratory Sensitivity (Category 1A/1B)

Chronic aquatic toxicity (Category 3)

According to European Directive 67/548/EEC as amended.

Xi – Irritant. Irritating to eyes. May cause sensitisation by inhalation and skin contact.

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
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

### 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
Xi	Irritant

### R-phrases(s)

R36/38	Irritating to eyes and skin
R36	Irritating to eyes
R42	May cause sensitization by inhalation

### 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
Buffer G1				
Guanidine hydrochloride	50-01-1	200-002-3	50-66%	H302; H315; H319; R22-36/38
Buffer G2				
Polyoxyethylene sorbitan monolaurate	9005-64-5	-	36-50%	-
Wash Buffer GW1				
Guanidine hydrochloride	50-01-1	200-002-3	50-66%	H302; H315; H319; R22-36/38
2-propanol	67-63-0	200-661-7	20-50%	H226;H319;H336;R 10-36-67
Proteinase K (lyophilized)				
Proteinase K	39450-01-6	254-457-8	10-100%	H315;H317;H319;H 334;H335

### 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
Buffer G1	Colourless	Odourless	Liquid	3.5-4.0	-	-	-	1.15g/cm <sup>3</sup>
Buffer G2	Slightly Yellow	Odourless	Liquid	6-8	-	>100°C	0-10%	1.10g/cm <sup>3</sup>
Wash Buffer GW1	Colourless	Alcoholic	Liquid	7-8	25°C	-	-	1.06g/cm <sup>3</sup>
Wash Buffer GW2	Colourless	Odourless	Liquid	7-8	-	-	-	1.00g/cm <sup>3</sup>
Elution Buffer G	Colourless	Odourless	Liquid	8-9	-	-	-	1.00g/cm <sup>3</sup>
Proteinase K	Slightly Grey	Odourless	Solid (Lyoph)	-	-	-	-	-
Proteinase Buffer PR	Colourless	Alcoholic	Liquid	-	-	-	-	1.11g/cm <sup>3</sup>
Lysis Buffer GL	Colourless	Odourless	Liquid	7.5-8.5	-	-	-	-

## 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

	Buffer G1	Wash buffer GW1	
	Guanidine hydrochloride 50-01-1	Guanidine hydrochloride 50-01-1	2-propanol 67-63-0
LD50 <sub>ori rat</sub>	475 mg/kg	475 mg/kg	5045 mg/kg
LD50 <sub>hi rat</sub>	5.3 <sub>4h</sub> mg/m <sup>3</sup>	5.3 <sub>4h</sub> mg/m <sup>3</sup>	16 <sub>4h</sub> g/m <sup>3</sup>
LD50 <sub>dm rbt</sub>	>2000 mg/kg	>2000 mg/kg	12.8 g/kg
LC-Lo <sub>ori hmn</sub>	-	-	3570 mg/kg

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

## 12. ECOLOGICAL INFORMATION

	Buffer G1	Buffer G2	Wash buffer GW2	Elution buffer G	Wash buffer GW1		Proteinase Buffer PR	Proteinase K	Lysis Buffer GL
	Guanidine hydrochloride 50-01-1	Polyoxyethylene sorbitan monolaurate	<1% no declaration necessary	<1% no declaration necessary	Guanidine hydrochloride 50-01-1	2-propanol 67-63-0	Glycerol 56-81-5	Proteinase K 39450-01-6	<2% no declaration necessary
WGK (DE)	1	1	1	1	1	1	1	1	1
Storage class (VCI)	12	10-11	12	12	12	3 A	13	13	12
WGK No.	0788	-	-	-	0788	0135	-	-	-
Bio Toxicity	3/2,6/2,2-3,4	-	-	-	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** ( $\leq 30\text{ml}/\Sigma \leq 1\text{L}$ ) = 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
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

**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
Xi	Irritant

**R-phrases(s)**

R36/38	Irritating to eyes and skin
R36	Irritating to eyes
R42	May cause sensitization by inhalation

**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

**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.