



MATERIAL SAFETY DATA SHEET

According to EC Directive 91/155 EC

Date: 01/05/10

1. Identification of the substance/preparation and of the company/undertaking

1.1 Product Details:

Trade Name: ISOLATE PCR and Gel Kit

Catalogue Number: BIO-52028, 10 Reactions
 BIO-52029, 50 Reactions
 BIO-52030, 250 Reactions

1.2 Company Details:

Manufacturer/ Supplier: Bioline
 16 The Edge Business Centre
 Humber Road
 London
 NW2 6EW
 Tel: +44 (0)20 8830 5300
 Fax: +44 (0)20 8452 2822

Further Information Obtainable from:
 Technical Services
 Details as above

1.3 Emergency Details:

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

2. Composition/ Information on Ingredients

2.1 Chemical Characterization:

Trade Name: Binding Buffer A
Chemical Characterization: Alcoholic solution of Ammonium monohydrogen citrate

Dangerous component:

PROPAN-2-OL

CAS #

67-63-0

Symbol: F, Xi

R-phrases: 11/36/67

EEC #

200-661-7

Diammonium hydrogen 2-hydroxypropane-1,2,3-tricarboxylate
CAS # 3012-65-5 EEC # 221-146-3
Symbol: Xi
R-phrases: 36/67

3. Hazards Identification

3.1 Precautionary Statements:

R 11/36/67:
R 11 - Highly flammable.
R 36 - Irritating to eyes.
R 67 - Vapours may cause drowsiness and dizziness.

Target Organs: Central nervous system

4. First Aid Measures

4.1 After Inhalation:

Remove victim to fresh air. Give oxygen if breathing becomes difficult. Should breathing stop, give artificial respiration. Get medical aid if cough or other symptoms appear.

4.2 After Swallowing:

Keep victim warm and calm. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Consult a doctor immediately.

4.3 After Contact with Eyes:

Immediately flush eyes with copious amounts of water for at least 15 minutes. Consult a doctor immediately.

4.4 After Contact with Skin:

Wash contaminated areas with large volumes of soap and water for at least 15 minutes as contaminated clothing is removed. Get medical attention if area remains irritated. Do not wear contaminated clothing until after it has been properly cleaned.

5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Water spray, CO₂ or dry chemical powder. Large fires should be confronted with appropriate foam.

5.2 Fire Fighting Protective Measures:

Wear self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and protective garments. If possible, have this product removed from the fire scene.

6. Accidental Release Measures

6.1 Personal Precautions:

Wear self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent), chemical safety goggles, rubber boots, and heavy rubber gloves.

6.2 Environmental Precautions:

Do not allow to enter the surface or ground water. Do not allow to enter sewers.

6.3 Clean-up Measures:

Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

7. Handling and Storage

7.1 Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

7.2 Storage:

Store tightly closed at Room Temperature. Store away from explosive substances and products and oxidizers. Protect from sun. Protect from warming up/overheating.

8. Exposure Controls/ Personal Protection

Wear appropriate NIOSH / MSHA-Approved respirator, chemical resistant gloves, chemical safety goggles. Safety shower and eye both. Mechanical exhaust required. Keep tightly closed. Wash thoroughly after handling. Do not get in contact with eyes, skin or on clothing. Do not inhale vapor. Severe eye irritant.

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

Physical states / form: liquid

Color: colorless

Odor: alcohol-like

Boiling point: 85°C

Flashpoint: ~ 17°C

Oxidising properties : No.

Explosion hazard : No.

Explosion limits (Vol.%) lower : 2, upper : 12

Vapour pressure : 41.6 mbar (20°C)

Density (g/ml) : ~ 0,9

Solubility (in Water): miscible

Soluble in: most organic solvents.

10. Stability and Reactivity

10.1 Stability

Conditions to avoid: Sparks, flames, static charge

Avoid excess heat, flame, pressure, light and incompatible materials

10.2 Reactivity

Substances to avoid: Contact with oxidizers may lead to strong reactions.

Hazardous, combustion or decomposition products: No dangerous decomposition products when properly handled.

Hazardous Polymerization: Has not been reported.

11. Toxicological Information

11.1 Acute Effects:

Inhalation, LC50 rat, (mg/l/4h): N/A

Ingestion, LD50 rat, (mg/kg): N/A

Skin - contact, LD50 rat, (mg/kg): N/A

Irritation (to skin / eye): Irritating to eyes.

Sensitisation: N/A

Chronic effects: N/A

11.2 Further Toxicological Information

The product should be handled with the normal caution accorded to chemical handling. Additional harmful properties cannot be ruled out.

12. Ecological Information

No information available

13. Disposal Considerations

13.1 Product Disposal:

Not listed as a material banned from land disposal according to RCRA.

13.2 Packaging Disposal:

Unclean packaging should be disposed of according to official regulations.

14. Transport Information

Transportation by Road or Railway according to ADR and RID

Remarks:

Name and Description: UN 1219 Isopropanol-Solution

Class: 3 UN - No : 1219 Risk label:

Classification Code: F1 Packing Group: II Hazard-No.: 33

Transport-category: 3 Limited Quantity: LQ 4

Classification for Transportation by Inland-Navigation according to ADNO

Remarks: Classification has not been done.

Classification for Transportation by Vessels according to IMDG

Remarks:

Class: 3, UN-No.: 1219, Packing Group: II

EmS-No.: F-E; S-D

Marine Pollutant : No.

Instruction for Declaration and Labelling :

Proper Shipping Name: Isopropanol-Solution

Risk Label Flammable Liquid

Remarks: None.

Safety Data Sheet in Accordance with regulation 1907/2006 page 5 of 5

Trade name: Binding Buffer D

Classification for Transportation by Aeroplane according to IATA-DGR/ICAO-TI

Remarks:

Class: 3, UN-No.: 1219 Packing Group: II

Instruction for Declaration and Labelling:

Proper Shipping Name: Isopropanol-Solution

Risk Label: Flammable Liquid

Packing Instructions, Passenger: 305 Cargo: 307

Remarks: None.

15. Regulatory Information

15.1 Labelling According to EU Guidelines

Classification required by EEC: Yes. Applicable Exemptions: Yes.

Hazard Identification: Highly flammable & Irritant

R-Phrases :

R 11 - Highly flammable.

R 36 - Irritating to eyes.

R 67 - Vapours may cause drowsiness and dizziness.

S-Phrases :

S 7: Keep container tightly closed.

S 16: Keep away from sources of ignition - No smoking.

S 24 / 25: Avoid contact with skin and eyes.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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 contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.



MATERIAL SAFETY DATA SHEET

According to EC Directive 91/155 EC

Date: 17/03/03

1. Identification of the substance/preparation and of the company/undertaking

1.1. Product Details:

Trade Name: ISOLATE PCR and Gel Kit

Catalogue Number: BIO-52028, 10 Reactions

BIO-52029, 50 Reactions

BIO-52030, 250 Reactions

1.2. Company Details:

Manufacturer/ Supplier: Bioline

16 The Edge Business Centre

Humber Road

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NW2 6EW

Tel: +44 (0)20 8830 5300

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Further Information Obtainable from:

Technical Services

Details as above

Emergency Details:

24-Hour Contact in case of emergency:

Vergiftungs-Informations-Zentrale

Mathilden Strasse 1

79106 Freiburg

GERMANY

Tel: +49 (0) 761 19240.

2. Composition/ Information on Ingredients

2.1 Chemical Characterization:

Trade Name: Gel Solubilizer

Chemical Characterization: Aqueous solution of thiocyanate

Dangerous component:

Polyoxyethylene octyl phenyl ether

CAS #

EEC #

R phrases

Symbol

9002-93-1

N/A

22-41-51/53

Xn

Guanidinium thiocyanate CAS #	EEC #	R phrases	Symbol
593-84-0	209-812-1	20/21/22-32-53/53	Xn

3. Hazards Identification

3.1 For Humans: Harmful. Harmful by inhalation, in contact with skin and if swallowed. Contact with acids liberates very toxic gas.

3.2 For the Environment: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3.3 For Materials: Materials should be tested for resistance.

4. First Aid Measures

4.1 After Inhalation:

After inhalation of product / fumes of fire leave contaminated area and provide for fresh air. In the event of symptoms occurring, seek medical treatment. Risk of pulmonary oedema.

4.2 After Swallowing:

Summon a doctor immediately. Do not cause vomiting. Rinse mouth out and drink plenty of water.

Note to Physician: Risk of pulmonary oedema. Continue to monitor for pneumonia and pulmonary oedema. Symptomatic treatment.

4.3 After Contact with Eyes:

Immediately flush eyes with copious amounts of water for at least 15 minutes. Consult a doctor immediately.

4.4 After Contact with Skin:

Wash contaminated areas with large volumes of soap and water for at least 15 minutes as contaminated clothing is removed. Get medical attention if area remains irritated. Do not wear contaminated clothing until after it has been properly cleaned.

5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:

Water spray, CO₂ or dry chemical powder. Large fires should be confronted with appropriate foam.

5.2 Fire Fighting Protective Measures:

Wear self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and protective garments. If possible, have this product removed from the fire scene.

6. Accidental Release Measures

6.1 Personal Precautions:

Wear self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent), chemical safety goggles, rubber boots, and heavy rubber gloves.

6.2 Environmental Precautions:

Do not allow to enter the surface or ground water. Do not allow to enter sewers. Inform responsible authorities after accidental conduction.

6.3 Clean-up Measures:

Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.

7. Handling and Storage

7.1 Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

7.2 Storage:

Store tightly closed at Room Temperature. Store away from oxidizers, acids. Provide solvent resistant and tight floor. Protect from sun. Protect from warming up/overheating.

8. Exposure Controls/ Personal Protection

Wear appropriate NIOSH / MSHA-Approved respirator, chemical resistant gloves, chemical safety goggles. Safety shower and eye both. Mechanical exhaust required. Keep tightly closed. Wash thoroughly after handling. Do not get in contact with eyes, skin or on clothing. Do not inhale vapor. Severe eye irritant.

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

Physical states / form: liquid
Color: colorless
Odor: charactersitic
Boiling point: 100°C
Flashpoint: Not available
Vapor pressure: Negligible
Oxidising properties : No.
Explosion hazard : No.
Explosion limits (Vol.%): None
Vapour pressure : Not available
Density (g/ml) : ~ 1.1
Solubility (in Water): miscible
Soluble in: most organic solvents.

10. Stability and Reactivity

10.1 Stability

Conditions to avoid: Contact with acids liberates toxic gases

10.2 Reactivity

Substances to avoid: Reacts with acids, alkalines and oxidisers.

Hazardous, combustion or decomposition products: No dangerous decomposition products when properly handled.

Thermal decomposition: Thiocyanates.

11. Toxicological Information

11.1 Acute Effects:

Inhalation, LC50 rat, (mg/l/4h): N/A
Ingestion, LD50 rat, (mg/kg): N/A
Skin - contact, LD50 rat, (mg/kg): N/A
Irritation (to skin / eye): Irritating to eyes.
Sensitisation: N/A

Chronic effects: N/A

11.2 Further Toxicological Information

The product should be handled with the normal caution accorded to chemical handling.
Additional harmful properties cannot be ruled out.

12. Ecological Information

Harmful to aquatic organisms
Bioaccumulative potential:
May cause long-term adverse effects in the aquatic environment

13. Disposal Considerations

13.1 Product Disposal:

Not listed as a material banned from land disposal according to RCRA.

13.2 Packaging Disposal:

Unclean packaging should be disposed of according to official regulations.

14. Transport Information

Transportation by Road or Railway according to ADR and RID

Remarks: Not dangerous goods

Name and Description: UN 1219 Isopropanol-Solution

Class: 3 UN - No : 1219 Risk label:

Classification Code: F1 Packing Group: II Hazard-No.: 33

Transport-category: 3 Limited Quantity: LQ 4

Classification for Transportation by Inland-Navigation according to ADNO

Remarks: Classification has not been done.

Classification for Transportation by Vessels according to IMDG

Remarks:

Class: 3, UN-No.: 1219, Packing Group: II

EmS-No.: F-E; S-D

Marine Pollutant : No.

Instruction for Declaration and Labelling :

Proper Shipping Name: Isopropanol-Solution

Risk Label Flammable Liquid

Remarks: None.

Safety Data Sheet in Accordance with regulation 1907/2006 page 5 of 5

Trade name: Binding Buffer D

Classification for Transportation by Aeroplane according to IATA-DGR/ICAO-TI

Remarks:

Class: 3, UN-No.: 1219 Packing Group: II

Instruction for Declaration and Labelling:

Proper Shipping Name: Isopropanol-Solution

Risk Label: Flammable Liquid

Packing Instructions, Passenger: 305 Cargo: 307

Remarks: None.

15. Regulatory Information

15.1 Labelling According to EU Guidelines

Classification required by EEC: Yes. Applicable Exemptions: Yes.

Hazard Identification: Highly flammable & Irritant

R-Phrases :

R 11 - Highly flammable.

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S 7: Keep container tightly closed.

S 16: Keep away from sources of ignition - No smoking.

S 24 / 25: Avoid contact with skin and eyes.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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Mathilden Strasse 1
79106 Freiburg
GERMANY
Tel: +49 (0) 761 19240.

2. Composition/ Information on Ingredients

2.1 Chemical Characterization:

Trade Name: Binding Optimizer

Declaration:

In reference to the directions on hazardous materials the product does not contain any dangerous components which have to be declared and in concentrations not to be considered respectively. The solution does not contain more than 1 % of a hazardous component and not more than 0,1 % of a carcinogenic component. Therefore we do not supply a Material Safety Data Sheet.

Nevertheless, we recommend to wear protective clothing (safety glasses, laboratory coats, protective gloves) during contact with our products. We assume no liability for damage resulting from handling or contact with these products.

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According to EC Directive 91/155 EC
Date: 17/03/03

3. Identification of the substance/preparation and of the company/undertaking

3.1. Product Details:

Trade Name: ISOLATE PCR and Gel Kit

Catalogue Number: BIO-52028, 10 Reactions
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Manufacturer/ Supplier: Bioline
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Mathilden Strasse 1
79106 Freiburg
GERMANY
Tel: +49 (0) 761 19240.

4. Composition/ Information on Ingredients

2.1 Chemical Characterization:

Trade Name: Elution Buffer

Declaration:

In reference to the directions on hazardous materials the product does not contain any dangerous components which have to be declared and in concentrations not to be considered respectively. The solution does not contain more than 1 % of a hazardous component and not more than 0,1 % of a carcinogenic component. Therefore we do not supply a Material Safety Data Sheet.

Nevertheless, we recommend to wear protective clothing (safety glasses, laboratory coats, protective gloves) during contact with our products. We assume no liability for damage resulting from handling or contact with these products.