

Solution B3 (EliGene® Blood DNA Isolation Kit, 411050)**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****1.1 Product information**

Commercial Product Name: Solution B3 (EliGene® Blood DNA Isolation Kit, 411050)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture: Laboratory chemicals

1.3 Details of the supplier of the safety data sheet

Company: ELISABETH PHARMACON, spol. s r.o.
Rokycanova 4437/5, 615 00 Brno,
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1.4 Emergency telephone number

Centre for detoxification Prague: +420 224 91 92 93/ +420 224 91 54 02

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification (REGULATION (EC) No 1272/2008)

Flammable liquid: Category 2 H225 Highly flammable liquid and vapor.

Skin irritation: Category 2 H315 Causes serious skin irritation.

Eye irritation: Category 2 H319 Causes serious eye irritation.

Classification (67/548/EEC, 1999/45/EC)

Highly flammable R11: Highly flammable

Harmful R22: Harmful if swallowed.

Irritant R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H225 Highly flammable liquid and vapor.

H315 Causes serious skin irritation.

H319 Causes serious eye irritation.

Precautionary statements (P statements)

P210 Keep away from heat/sparks/open flames/hot surfaces.

No smoking.

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according to Regulation (EC) No. 1907/2006



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P280 Wear protective gloves/protective clothing/eye protection/face protection.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Hazardous components

Chemical Name	CAS- No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
ethanol	64-17-5 200-578-6	F; R11	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 50 -< 70
guanidine chloride	50-01-1 200-002-3	Xn; R22 Xi; R36/38	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332	>= 30 -< 50

For explanation of abbreviations see section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice:	Move out of dangerous area Show this data sheet to the doctor in attendance.
If inhaled:	If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
In case of eye contact:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:	If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms:	No information available
Risks:	Causes skin irritation. Causes serious eye irritation.

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Treatment: No information available.

SECTION 5: FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.
Exposure to decomposition products may be a hazard to health.

Hazardous combustion products: No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: In the event of fire and/or explosion do not breathe fumes.
Use a water spray to cool fully closed containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions: Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas

6.2 Environmental precautions

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Advice on safe handling: Avoid formation of aerosol.
Do not breathe vapors/dust.

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Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion:

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition

Hygiene measures:

Keep away from food and drink. Wash hands before breaks and at the end of workday. Ensure adequate ventilation, especially in confined areas. Avoid contact with the skin and the eyes. When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep container tightly closed in a dry and well – ventilated place.

Advice on common storage:

Do not store together with oxidizing and self -igniting products

Other data:

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s):

Laboratory chemicals

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters**

Chemical Name	CAS-No.	Value	Control parameters	Basis
ethanol	64-17-5	TWA	1,000 ppm 1,920 mg/m ³	GB EH40

8.2 Exposure controls

Personal protective equipment

Eye protection:

Safety glasses
Wear face - shield and protective suit for abnormal processing problems. Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection:

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves complying with EN 374.

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Skin and body protection:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Footwear protecting against chemicals. Workers should wear antistatic footwear.
Respiratory protection:	In the case of vapour formation use a respirator with an approved filter.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance:	liquid
Colour:	No data available
Odour:	alcohol-like
Odour Threshold:	No data available
pH:	4 – 4.73 (18 – 22 °C)
Melting point/range:	No data available
Boiling point/boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Burning rate:	No data available
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapour pressure:	No data available
Relative vapour density:	No data available
Relative density:	No data available
Density:	No data available
Solubility(ies)	
Water solubility:	No data available
Solubility in other solvents:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information

No data available

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SECTION 10. STABILITY AND REACTIVITY**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions: Stable under recommended storage conditions.
Hazardous decomposition products formed under fire conditions.
Vapors may form explosive mixture with air.
Keep away from oxidizing agents, and acidic or alkaline products
none under normal use

Hazardous decomposition products: No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid: Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid: No data available

10.6 Hazardous decomposition products

Hazardous decomposition products: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Toxicological information for the product**

Product:

Acute oral toxicity: Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity: Acute toxicity estimate: > 20 mg/l
Exposure time: 4 hours
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity: No data available

Ingredients:

ethanol

Acute oral toxicity: LD50/rat = 10,470 mg/kg
Acute inhalation toxicity: LC50/rat = 20000 ppm
Exposure time: 10 hours

guanidine chloride

Acute oral toxicity: Acute toxicity estimate: 500 mg/kg
Method: Converted acute toxicity point estimate
LD50 Oral (Rat): 1,120 mg/kg

Skin corrosion/irritation

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Causes skin irritation

Product:

Remarks:

May irritate skin.

Serious eye damage/eye irritation

Causes serious eye irritation

Product

May cause irreversible eye damage.

Ingredients

Ethanol: eye irritation

Respiratory or skin sensitisation

Skin sensitisation: No data available

Respiratory sensitisation: No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

Aspiration toxicity

No data available

Further information

Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish:

No data available

Toxicity to algae:

No data available

Toxicity to bacteria:

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Product:

Bioaccumulation:

No data available

Ingredients:

Guanidine chloride

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Partition coefficient: n

-octanol/water:

log Pow: ca.-1.7(20 °C)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological information Remarks: Harmful for water organisms.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Waste from residues:

Send to a licensed waste management company.
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging:

Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**14.1 UN number**

ADR: UN 1170
RID: UN 1170
IMDG: UN 1170
IATA: UN 1170

14.2 UN proper shipping name

ADR: Ethanol solution
RID: Ethanol solution
IMDG: Ethanol solution
IATA: Ethanol solution

14.3 Transport hazard class(es)

ADR: 3
RID: 3
IMDG: 3
IATA: 3

14.4 Packing group**ADR**

Packing group: II
Classification Code: F1
Hazard Identification Number: 33
Labels: 3

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Tunnel restriction code: (D/E)

RID

Packing group: II

Classification Code: F1

Labels: 3

IMDG

Packing group: II

Labels: 3

EmS Code: F-E, S-D

IATA

Packing group: II

Labels: Flammable Liquids

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

For personal protection see section 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

REACH -Candidate List of Substances of Very High Concern for Authorisation (Article 59): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: Not applicable

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances:

		Quantity 1	Quantity 2
7b	highly flammable	5,000 t	50,000 t

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances:

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5,000 t	50,000 t

34	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)	2,500 t	25,000 t
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15.2 Chemical Safety Assessment

No data available

SECTION 16. OTHER INFORMATION**Full text of H-Statements**

H225: Highly flammable liquid and vapour.
H302: Harmful if swallowed
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.

Full text of other abbreviations

Accute Tox.: Accute toxicity
Eye Irrit.: Eye irritation
Flam. Liq.: Flammable liquids
Skin Irrit.: Skin irritation

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.