

Solution P4 (EliGene® Plant DNA Isolation Kit, 414050P, 414050)**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****1.1 Product information**

Commercial Product Name: Solution P4 (EliGene® Plant DNA Isolation Kit, 414050P, 414050)

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,
Czech Republic

Telephone: +420 542 213 851

Fax: +420 542 213 827

E-mail: info@elisabeth.cz

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**

The substance or mixture is classified as dangerous according to Regulation (EC) No 1272/2008.

Acute Tox. 4; H302

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Acute Tox. 4; H332

2.2 Label elements

Hazard pictograms:



Signal Word: Warning

Hazard Statements: H302 + H332 Harmful if swallowed or if inhaled.
H315 Causes serious skin irritation.
H319 Causes serious eye irritation.

Precautionary statements (P statements)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

P301 + P312 + P330 If swallowed: Call a poison center or doctor/ physician if you feel unwell. Rinse mouth.

P304 + P340 + P312 If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/ physician if you feel unwell.

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P305 +P351 +P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 +P313 If eye irritation persists: Get medical advice/ attention.

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 (REGULATION (EC) No 1272/2008)	Concentration (%)
guanidine chloride	50-01-1 200-002-3	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332	>= 50 -< 70

For explanation of abbreviations see section 16

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

General advice: Show this data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off immediately with soap and plenty of water. Consult 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. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE-FIGHTING MEASURES

Solution P4 (EliGene® Plant DNA Isolation Kit, 414050P, 414050)**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:: Carbon oxides, Hydrogen chloride gas

5.3 Advice for firefighters

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

Further information: In case of fire / explosion, avoid inhalation of vapors.

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

Personal precautions: Use personal protective equipment.
Ensure adequate ventilation.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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: Keep in suitable, closed containers for disposal.

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 contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

Instructions for protection against fire and explosion: Common methods for fire prevention.

Hygiene measures: Keep away from food and drink. Wash your hands before breaks and at the end of the working day. Ensure adequate ventilation, especially in confined spaces. Avoid contact with skin and eyes.
When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage containers: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Advice on common storage: no data available

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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**

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye protection: Safety glasses

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).

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.

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

Appearance:	liquid
Colour:	No data available
Odour:	No data available
Odour Threshold:	No data available
pH:	6.4 (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

Solution P4 (EliGene® Plant DNA Isolation Kit, 414050P, 414050)**Solubility(ies)**

Water solubility:	soluble
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

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: No data available.

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: Strong oxidizing agents.

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:	No data available
Acute inhalation toxicity:	No data available
Acute dermal toxicity:	No data available

Components:

guanidine chloride

Acute oral toxicity:	Acute toxicity estimate: 500 mg/kg Method: Converted acute toxicity point estimate
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LD50 Oral (Rat): 1.120 mg/kg

Skin corrosion/irritation

Causes skin irritation

Serious eye damage/eye irritation

Irritating eyes.

Respiratory or skin sensitisation

Buehler Test – Guinea pig

Did not cause sensitisation on laboratory animals.

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

RTECS: MF4300000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver-Irregularities-Based on Human Evidence

SECTION 12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish:

LC50-Leuciscus idus (Golden orfe)-1.759 mg/l

Toxicity to algae:

No data available

Toxicity to bacteria:

No data available

12.2 Persistence and degradability

Not readily biodegradable.

12.3 Bioaccumulative potential

Product:

Bioaccumulation:

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

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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 :

May be harmful to aquatic organisms. Avoid release to the environment.

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

Waste from residues:

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber

Contaminated packaging:

Dispose of as unused product.

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

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

For personal protection see section 8.

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

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Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances: Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances: Not applicable

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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

H302: Harmful if swallowed
H302 + H332: Highly flammable liquid and vapour.
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
Skin Irrit.: Skin irritation
STOT SE: Specific target organ toxicity -single exposure

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.