

**Solution S5 (EliGene® Soil DNA Isolation Kit, 412050)****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****1.1 Product information**

Commercial Product Name: Solution S5 (EliGene® Soil DNA Isolation Kit, 412050)

**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 is classified as dangerous according to Regulation (EC) No.1272/2008.

Flam.Liq.2: H 225

Eye Irrit .2: H319

STOT SE 3: H336

**2.2 Label elements**

Hazard pictograms:



Signal Word:

Danger

Hazard Statements:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

**Advice on safe handling**

P210 Protect from heat / sparks / open flame / hot surfaces. - No smoking.

P233 Keep the container tightly closed.

P305+P351+P338 In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if possible and if easy to remove. Continue rinsing.

**2.3 Other hazards**

Not known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Mixtures**

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Chemical name	Content in %	Index number	Classification	Concentration limits
isopropylalcohol	min. 99	603-117-00-0	Flam.Liq.2: H225; Eye Irrit.2: H31 9; STOT SE 3: H336	-

**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:	Move person into fresh air and place the person in a side-to-side position to prevent suffocation if vomiting is present. If not breathing, give artificial respiration. Immediately provide professional medical assistance.
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:	Not known.
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**4.3 Indication of any immediate medical attention and special treatment needed**

Treatment:	There are no specific instructions to follow, proceed symptomatically.
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**SECTION 5: FIRE-FIGHTING MEASURES****5.1 Extinguishing media**

Suitable extinguishing media:	water spray, powder, CO <sub>2</sub> , foam
Unsuitable extinguishing media:	direct water stream

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting:	Flammable substance. Vapors heavier than air. Beware of back-up.
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**5.3 Advice for firefighters**

Special protective equipment for firefighters:	Wear self-contained breathing apparatus for firefighting, protective suit 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**

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**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. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas
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**6.2 Environmental precautions**

Prevent contamination of surface water, ground water and soil.  
Prevent product from entering drains, danger of explosion.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up:	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations
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**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:	Use personal protective equipment, follow the principles of personal hygiene. Avoid prolonged or repeated exposure. Avoid contact with the substance, do not inhale vapors. Work in the digester.
Advice on protection against fire and explosion:	Normal measures for preventive fire protection.
Hygiene measures:	Keep away from food and drink. When using do not eat, drink or smoke.

**7.2 Conditions for safe storage, including any incompatibilities**

Other data:	Store in tightly closed containers in a dry, cool place protected from light at a temperature not exceeding 25 ° C. Store away from heat and ignition sources. Take precautions to avoid electrostatic charge.
Quantitative limits for safe storage:	According to the categorization of substances according to Annex No. 1 to Act No. 59/2006 Coll. On the prevention of severe depletions for substances classified as highly flammable: 5000 - 50000 t

**7.3 Specific end use(s)**

Specific use(s):	Solvent
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**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION****8.1 Control parameters**

Exposure limit values in the Czech Republic according to Government Decree 361/2007: Permissible  
Exposure Limit PEL: 500 mg/m<sup>3</sup>.  
Maximum admissible concentration of NPK-P: 1000 mg/m<sup>3</sup>

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Recalculation factor from mg/ 3 to ppm (25 °C, 100 kPa): 0.407

EU limit values according to Directive 98/24 / EC: 8 hours: not available (20 °C, 101.3 kPa)

Ppm is not available

**8.2 Exposure controls**

Appropriate technical checks: Proceed according to the requirements of Regulation 361/2007

*Personal protective equipment*

Eye protection: Safety glasses

Hand protection Remarks: Suitable protective gloves (nitrile rubber, thickness – 0.11 mm, penetration time &gt; 480 min).

Skin and body protection: The type of preservative must be chosen according to the concentration and the amount of dangerous substance at the workplace.

Shoes resistant to chemicals.

Respiratory protection: Respirator, mask with filter against organic vapor, or self-contained breathing apparatus.

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

Appearance:	liquid
Colour:	clear
Odour:	alcohol-like
Odour Threshold:	sharp alcoholic
pH:	neutral
Melting point/range:	-89.5 °C
Boiling point/boiling range:	81.4 °C
Flash point:	12 °C – closed cup
Evaporation rate:	Not available
Flammability:	flammable
Upper explosion limit:	12.7 % (V)
Lower explosion limit:	2 % (V)
Vapour pressure:	No data available
Density of steam:	2.07
Relative density (20 °C):	0.786 g/cm <sup>3</sup>
Density:	No data available
Solubility(ies)	
Water solubility:	soluble
Solubility in other solvents:	No data available
Partition coefficient: n-octanol/water:	0.05

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Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity (20.0 °C):	2.2 mPa.s
Explosive properties:	No data available
Oxidizing properties:	No data available

**9.2 Other information**

VOC content: 100%

Total organic carbon content: 0.599 kg / kg of product.

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

No data available

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Not available.

**10.4 Conditions to avoid**

Conditions to avoid: Do not store the source of heat and ignition

**10.5 Incompatible materials**

Materials to avoid: Inorganic acids, organic nitrocompounds, strong oxidizing agents, alkaline metals

**10.6 Hazardous decomposition products**

Hazardous decomposition products: In case of fire, see chapter 5  
It may explode in the presence of vapor / gaseous air. Hygroscopic.  
Solvent for oils and rubber. Unsuitable working materials: various plastics and rubber.

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

Product:

Acute oral toxicity:	LD50/rat = 5 045 mg/kg
Acute inhalation toxicity:	LC50/rat for aerosols or particles, (mg.l <sup>-1</sup> ): not available
Acute inhalation toxicity:	LC50/rat = 16000 ppm
Acute dermal toxicity:	LD50/rabbit = 12800 mg/kg

*Skin corrosion/irritation*

Application on skin, rabbit, 500 mg - slight irritation.

*Serious eye damage/eye irritation*

Application to eye, rabbit, 100 mg - strong irritation

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*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

*Information on likely exposure routes*

Ingestion: headache, dizziness, nausea, unconsciousness

Inhalation: Irritation of mucous membranes, cough, shortness of breath, drowsiness.

Skin contact: Irritation.

The degreasing effect on the skin can be followed by secondary inflammation.

Eye contact: irritation to eye damage

*Further information*

No data available

**SECTION 12. ECOLOGICAL INFORMATION****12.1 Toxicity**

Toxicity to fish:	LC50, 96 hours, 10400 mg/l
Toxicity to daphnia:	EC50, 48 hours, mg.l <sup>-1</sup> : 9714
Toxicity to algae:	LC50, 72 hours, 2000 mg/l

**12.2 Persistence and degradability**

Biologically degradable

**12.3 Bioaccumulative potential**

Bioaccumulation: No significant bioaccumulation potential is expected.

**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**

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Additional ecological information Remarks: Harmful for water organisms.

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

Residues of the substance as well as rinsing water must not be discharged into the soil, public sewers, or near water sources and waterways. Dispose of the material as hazardous waste authorized by the company in accordance with valid legislation.

**Methods for disposal of the substance or preparation and contaminated waste:** Absorb spillage fluid Material (vermiculite, sand, soil), collect in covered containers and dispose of by a specialized company

**Methods for Disposal of Contaminated Packaging:** Place the used, properly emptied packing at the packaging waste collection point.

**Waste legislation:** Waste Act No. 185/2001 Coll. As amended and the implementing decree No 376/2001, 381/2001 and 383/2001 Coll.

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

1219

**14.2 UN proper shipping name**

Isopropanol

**14.3 Transport hazard class(es)**

3

**14.4 Packing group**

II

**14.5 Environmental hazards**

F-E, S-D

**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**

No data available

**14.8 Specific transport requirements**

Carriage by sea

Marine pollutant: not available

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

The classification and labeling of the substance is in accordance with CLP, DSD.

REACH Regulation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation,

Authorization and restriction of chemicals; as amended.

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CLP Regulation: Regulation (EC) No 1272/2008 of the European Parliament and of the Council on Classification, Labeling and Labeling  
Packaging of substances and mixtures; as amended.

National regulations on protection of persons or the environment  
Regulation No. 361/2007 Coll., Laying down the conditions for the protection of the health of workers at work  
Act No. 258/2000 Coll., On the Protection of Public Health, as amended  
Act No. 262/2006 Coll., Labor Code, as amended  
Act No. 201/2012 Coll., On air protection, as amended  
Act No. 254/2001 Coll., Water Act  
Act No. 350/2011 Coll., On Chemical Substances and Chemical Compositions  
Decree No. 432/2003 Coll., Laying down the conditions for classification of works into categories, limit values  
Indicators of Biological Exposure Tests, as amended.

**15.2 Chemical Safety Assessment**

No data available

**SECTION 16. OTHER INFORMATION**

- a) Revision: No.1 (23.1.2014) - in section 1 change of contact information  
No.3 (1.6.2015) - in section 2, 3 and 16 of the DSD (Dangerous Substances Directive) classification (67/548 / EEC) of the Dangerous Substances Directive); Change the email address  
Toxicological Information Center; in Section 13.1, supplementation of information; section 15 Czech amendment  
Legislation.  
No. 4 (16.5.2016) - in section 7.1 error correction (influence of vapors).  
No. 5 (30.6.2017) - in section 9.2 supplemented with VOC, organic carbon  
b) Legend of abbreviations: CLP - Regulation 1272/2008 / EC, DSD-Dangerous Substances Directive (37/548 / EEC)  
c) Used Literature, Resources: Corporate Database, Internet, Marhold - Overview of Industrial Toxicology  
d) it is not a mixture  
  
e) Hazard category, list of class codes and list of relevant H-statements: Flam.Liq.2  
Flammable liquids, category 2 - Flammable liquids, category 2  
Eye Irrit.2 (= Eye Irritation, category2) - Eye irritation, category 2  
STOT SE 3 (Specific target organ toxicity - single exposure, category 3) - Specific target organ toxicity - single exposure, Category 3  
H225 Highly flammable liquid and vapors.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness and dizziness.  
  
f) Training guidelines:  
Workers who come into contact with dangerous substances must, to the extent necessary, be aware of the effects of these substances, how they are handled, protective measures, with first aid principles, with the necessary sanitation procedures and with procedures for disaster and accident management. A legal entity or a natural person doing business with this chemical product must be trained in the safety rules and the data included in the safety data sheet.  
Persons carrying dangerous substances must be notified in accordance with the ADR / RID accident guidelines.



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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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.