

## L-GLUTAMIC ACID

### SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

**Product Name:** L-Glutamic acid  
**Product Code:** 1111  
**CAS#:** 56-86-0  
**Synonym:** (S)-2-Aminopentanedioic acid  
**Chemical Name:** Not available  
**Chemical Formula:** C<sub>5</sub>H<sub>9</sub>NO<sub>4</sub>  
**Formula weight :** 147.13

### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

**Composition:**  
**Name:** L-Glutamic acid  
**Toxicological Data on Ingredients:**  
This substance is not classified as dangerous according to Directive 67/548/EEC.

### SECTION 3: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**  
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.  
**Potential Acute Health Effects:** Not available.  
**Potential Chronic Health Effects:** Not available.  
**Carcinogenic Effects:** Not available.  
**Mutagenic Effects:** Not available.  
**Teratogenic Effects:** Not available.  
**Developmental Toxicity:** Not Available

### SECTION 4: FIRST AID MEASURES

**Description of first aid measures**  
General advice Consult a physician. Show this safety 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 with soap and plenty of water. Consult a physician.  
**In case of eye contact:** Flush eyes with water as a precaution.  
**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  
**Most important symptoms and effects, both acute and delay:** No data available  
**Indication of any immediate medical attention and special treatment needed:** No data available

### SECTION 5: FIRE AND EXPLOSION DATA

**Extinguishing media**  
**Suitable extinguishing media** Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder.  
**Special hazards arising from the substance or mixture** Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride gas  
**Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.

### SECTION 6: ACCIDENTAL RELEASE MEASURES



**Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions** Do not let product enter drains.

**Methods and materials for containment and cleaning up** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers.

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

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

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

### Storage Class:

Storage class (TRGS 510): 11: Combustible Solids

### Specific end use(s) A part from the uses:

No other specific uses are stipulated

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure controls

**Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

**Eye/face protection** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure** Do not let product enter drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance Form</b>	: Solid
<b>Colour</b>	: Not available
<b>Odour</b>	: Not available
<b>Odour Threshold</b>	: Not available
<b>pH</b>	: Not available
<b>Melting point/freezing point</b>	: 205°C
<b>Initial boiling point and boiling range</b>	: Not available
<b>Flash point</b>	: Not available
<b>Evaporation rate</b>	: Not available
<b>Flammability (solid, gas)</b>	: Not available
<b>Upper/lower flammability or explosive limits</b>	: Not applicable
<b>Vapour pressure</b>	: Not available
<b>Vapour density</b>	: Not available



Relative density	: Not available
Water solubility	: Not available
Partition coefficient	: Not available
Auto-ignition temperature	: Not available

### SECTION 10: STABILITY AND REACTIVITY DATA

**Reactivity** no data available

**Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature).

**Possibility of hazardous reactions** no data available

**Conditions to avoid :**

May discolor on exposure to air and light. Exposure to moisture.

**Incompatible materials**

Strong oxidizing agents, Metals

**Hazardous decomposition products Other decomposition products** - In the event of fire

### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

LD50 Oral - Rat - male and female - > 5.110 mg/kg

Symptoms: Possible damages:, Nausea

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

**Skin corrosion/irritation** no data available

**Serious eye damage/eye irritation** no data available

**Respiratory or skin sensitization** no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity:**

Toxicity to fish static test LC50 - Cyprinus carpio (Carp) - > 100 mg/l - 96 h

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h

and other aquatic

invertebrates

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 31 mg/l - 72 h

**Persistence and degradability:**

Biodegradability aerobic - Exposure time 28 d

Result: 97 % - Readily biodegradable.

**Bioaccumulative potential** no data available

**Mobility** in soil no data available

**Results of PBT and vPvB assessment PBT/vPvB assessment** not available

**Other adverse affects** no data available

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods** Product 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**

**UN number:**

**ADR/RID:**

**IMDG:**

**IATA:**

**UN proper shipping name**

**ADR/RID:** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

**Transport hazard class(es):**

**ADR/RID:**

**IMDG:**

**IATA:**

**Packaging group:**

**ADR/RID:**

**IMDG:**

**IATA:**

**Environmental hazards:**

**ADR/RID:** No

**IMDG Marine pollutant:** No

**IATA:** No

**SECTION 15: OTHER REGULATORY INFORMATION**

**Regulatory information** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**SECTION 16: OTHER INFORMATION**

**References: Full text of H AND R-Statements.**

Not Applicable

**Other Special Considerations:** Not available

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.

