

L-Tyrosine**DOC0(190-193)****SECTION 1 Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Identification of the product : Raw material
Product code : DOC0(190-193)
Trade name : L-Tyrosine
CAS number : 000060-18-4
Synonyms : L-2-Amino-3-(4-hydroxyphenyl)propionic acid
: β -(p-Hydroxyphenyl)alanine

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

1.2.1 Relevant identified uses For research purposes only

1.2.2 Uses advised against No additional information available

1.3. Details of the supplier of the safety data sheet

Company identification : Formedium Ltd.
Unit 1B Hunstanton Commercial Park
Norfolk PE365JQ
Tel: +44(0)1485 609069
Fax: +44(0)1485 600510
E-mail: info@formedium.com

1.4. Emergency telephone number

Emergency telephone number : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)
NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours)

SECTION 2 Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Not regulated

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008**

Hazards pictograms code : None
Precautionary statements : None

2.3 Other hazards

None under normal conditions.

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L-Tyrosine**DOC0(190-193)****SECTION 3 Composition/information on ingredients****3.1 Substance / Preparation**Molecular weight g/mol : 181.2
Structural formula: : C9H11NO3

Substance name:	Contents	CAS No:	EC No:	Annex No:	Ref REACH	Classification
L-Tyrosine	> 99 %	60-18-4	200-460-4	--	--	--

SECTION 4 First aid measures**4.1. Description of first aid measures****General information** : Seek medical attention if ill effects develop.**Inhalation** : Remove victim to fresh air.**Skin contact** : Wash skin with mild soap and water.**Eye contact** : Rinse with water.**Ingestion** : Rinse mouth.**4.2. Most important symptoms and effects, both acute and delayed****Symptoms and effects, both acute and delayed.** : No data available.**4.3. Indication of any immediate medical attention and special treatment needed****Medical attention and special treatment needed.** : No data available.**SECTION 5 Fire-fighting measures****5.1. Extinguishing media****Suitable extinguishing media** : Water spray, Carbon dioxide (CO2) or Dry powder.**5.2. Special hazards arising from the substance or mixture**

Under fire conditions, hazardous fumes will be present.

COx NOx

5.3. Advice for firefighters**Protection against fire** : Wear proper protective equipment.**Special procedures** : Avoid (reject) fire fighting water to enter environment.

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SECTION 6 Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

General precautions : Avoid raising powdered material into airborne dust.

Personal precautions : Wear suitable protective clothing.

6.2 . Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Sweep up dry powder and dispose properly.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7 Handling and storage**7.1. Precautions for safe handling**

Store in a dry, well ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature.

7.3. Specific end use(s)

For research purposes only

SECTION 8 Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls**

- **Eye protection** : Chemical goggles or safety glasses.
- **Skin protection** : Wear suitable protective clothing.
- **Hand protection** : Gloves
- **Respiratory protection** : P1 Where excessive dust may result, wear approved mask.

SECTION 9 Physical and chemical properties**• Appearance**

Appearance : Powder.

Colour : White

• Odour

Odour : Odourless.

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- **Odour threshold**
Odour threshold : Not established.
- **pH**
pH value : 5.5 – 7 (0.1 g/L)
- **Melting point / Freezing point**
Melting point (°C) : 297 - 298
- **Initial boiling point – boiling range**
Boiling point (°C) : No data available.
- **Flash point**
Flash point (°C) : Not established.
- **Evaporation rate**
Evaporation rate (ether =1) : No data available.
- **Flammability**
Flammability range (vol % in air) : No data available.
- **Explosion limits (lower – upper)**
Explosion limits : No data available.
- **Vapour pressure**
Vapour pressure : Not established.
- **Vapour density**
Relative vapour density (air=1) : No data available.
- **Relative density**
Relative Density : No data available.
- **Solubility**
Solubility in water : 0.4 g/L
- **Partition coefficient : n-octanol / water**
Log P octanol / water at 20°C : 2.26
- **Auto-ignition temperature**
Auto-ignition temperature (°C) : No data available.
- **Thermal decomposition**
Thermal decomposition (°C) : No data available.
- **Viscosity**
Viscosity : No data available.
- **Explosive properties**
Explosive properties : Not established.
- **Oxidising properties**
Oxidising properties : Not established.

9.2 Other information

L-Tyrosine**DOC0(190-193)****SECTION 10 Stability and reactivity****10.1. Reactivity**

Stable under normal conditions.

10.2. Chemical stability**Stability**

: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

This product is non-hazardous.

10.4. Conditions to avoid**Conditions to avoid**

: Heat

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products**Hazardous decomposition products**

: No data available.

SECTION 11 Toxicological information**11.1. Information on toxicological effects****Toxicity Information****-Inhalation**

: Not established.

--Dermal

: May cause irritation to the respiratory tract.

-- Ocular

: May cause skin irritation.

-Rabbit oral LD50 (mg/Kg)

: May cause eye irritation.

: > 5110

11.2. Additional Information**Endocrine disrupting properties :**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

L-Tyrosine**DOC0(190-193)****SECTION 12 Ecological information****12.1. Toxicity**

No data available.

12.2. Persistence - degradability

No data available.

12.3. Bioaccumulative potential

None under normal conditions.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

Environmental precautions : Prevent entry to sewers and public waters.
Avoid release to the environment.**12.7. Endocrine disrupting properties**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13 Disposal considerations**13.1. Waste treatment methods****General** : Avoid release to the environment.
: Dispose in a safe manner and in accordance with local / national regulations.**SECTION 14 Transport information****14.1. UN Number**

Not applicable.

General information : Not classified as dangerous in the meaning of transport regulations.**14.2. UN Proper shipping name**

Not applicable.

14.3. Transport Hazard Class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable

L-Tyrosine**DOC0(190-193)****SECTION 15 Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety data sheet complies with the requirements of Regulation (EU) No. 2015/830

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 Other information**Further information**

: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision

: Complete SDS revision

End of document