



# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2019

Date Updated: September 25, 2019

## SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

**Product Name** L-Tyrosine  
**Product Code(s)** TB1932  
**Recommended Use** For Laboratory Research Use Only  
Not for Human or Animal Drug Use

**Supplier** Bio Basic Inc.  
**Address** 20 Konrad Crescent, Markham, Ontario,  
Canada, L3R 8T4  
**Telephone** (905) 474 4493  
**Fax** (905) 474 5794  
**For Chemical Emergency Phone#** (416) 995 9730

## SECTION 2. ----- HAZARDS IDENTIFICATION -----

### Classification of the substance or mixture

Not a hazardous substance or mixture.

### GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS** - none

## SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	CAS-No	Weight %
L-Tyrosine	200-460-4	60-18-4	<100

## SECTION 4. ----- FIRST-AID MEASURES -----

### Description of first aid measures

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### In case of skin contact

Wash off with soap and plenty of water.

#### 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.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### Indication of any immediate medical attention and special treatment needed

No data available

## **SECTION 5. ----- FIRE FIGHTING MEASURES -----**

### **Extinguishing media**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides, Nitrogen oxides (NOx)

#### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **Further information**

No data available

## **SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

### **Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

### **Environmental precautions**

No special environmental precautions required.

### **Methods and materials for containment and cleaning up**

Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

## **SECTION 7. ----- HANDLING AND STORAGE-----**

### **Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

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

Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 13: Non Combustible Solids

### **Specific end use(s)**

Apart from the uses mentioned in section 1 no other specific uses are stipulated

## **SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----**

### **Control parameters**

### **Exposure controls**

#### **Appropriate engineering controls**

General industrial hygiene practice.

### **Personal protective equipment**

#### **Eye/face protection**

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.

Full contact  
Material: Nitrile rubber  
Minimum layer thickness: 0.11 mm Break  
through time: 480 min

Splash contact Material:  
Nitrile rubber  
Minimum layer thickness: 0.11 mm Break  
through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### **Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Control of environmental exposure**

No special environmental precautions required.

## **SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -**

### **Information on basic physical and chemical properties**

- |   |  |
|---|--|
| a) Appearance                                   | Form: Fine crystals and fragments<br>Colour: white |
| b) Odour  | No data available                                  |
| c) Odour Threshold                              | No data available                                  |
| d) pH   | No data available                                  |
| e) Melting point/freezing point                 | Melting point/range: 343 °C (649 °F)               |
| f) Initial boiling point and boiling range      | No data available                                  |
| g) Flash point                                  | ( )No data available                               |
| h) Evaporation rate                             | No data available                                  |
| i) Flammability (solid, gas)                    | No data available                                  |
| j) Upper/lower flammability or explosive limits | No data available                                  |
| k) Vapour pressure                              | No data available                                  |
| l) Vapour density                               | No data available                                  |
| m) Relative density                             | No data available                                  |

- n) Water solubility 0.479 g/l at 25 °C (77 °F)
- o) Partition coefficient: log Pow: -2.26 at 25 °C (77 °F) n-octanol/water
- p) Auto-ignition temperature No data available
- q) Decomposition temperature No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

**Other safety information**

Dissociation constant 2.2 at 25 °C (77 °F)

**SECTION 10. -----STABILITY AND REACTIVITY -----**

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available In the event of fire: see section 5

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

**Information on toxicological effects**

**Acute toxicity**

Inhalation: No data available

Inhalation: No data available Dermal:

No data available

LD50 Intraperitoneal - Mouse - > 1,450 mg/kg

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: YP2275600

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

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

**Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**SECTION 15. ----- REGULATORY INFORMATION -----**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**SECTION 16. ----- OTHER INFORMATION -----**

Further information: no limited for paper copy, just for internal uses.  
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**Issuing Date:** 25-Sept-2019

**End of SDS**



## CERTIFICATE OF ANALYSIS

---

Product	L-TYROSINE
Grade	USP
Product Code	TB1932
Formula	C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>
MW	181.19
CAS#	60-18-4
Lot No	

---

---

Test Items	Specifications	Results
Appearance	White crystals or Crystalline powder	
Identification (IR)	Concordant with the reference spectrum	
Assay	98.5-101.5%	
Specific Rotation [α] <sub>D20</sub> <sup>o</sup>	-9.8 <sup>o</sup> ~ -11.2 <sup>o</sup>	
Chloride	≤0.04%	
Sulfate	≤0.04%	
Iron	≤30ppm	
Heavy Metals	≤15ppm	
Loss on Drying	≤0.30%	
Residue on Ignition	0.40%	
Chromatographic purity		
Individual impurity	≤0.5%	
Total impurity	≤2.0%	

---

Storage:       Store at room temperature. Protect from moisture.