



# SAFETY DATA SHEET

## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: L-Tyrosine, Free Base

PRODUCT NUMBER: T873

COMPANY INFO: *PhytoTechnology Laboratories®*  
PO Box 12205, Shawnee, KS 66282-2205  
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EMERGENCY PHONE NUMBER 1-800-535-5053 - US Only  
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories®* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

GHS Classification:

H315 – Skin irritation (Category 2)

H319 – Eye irritation (Category 2A)

H335 – Specific target organ toxicity – Respiratory System – single exposure (Category 3)

### GHS Label elements, including hazard and precautionary statements:

Pictogram:



Signal Word: **Warning**

### Precautionary Statements:

#### Hazard Statements:

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

H335 – May cause respiratory irritation.

P261 – Avoid breathing dust.

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

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: (S)- $\alpha$ -Amino-4-hydroxybenzenepropanoic Acid

CAS No: 60-18-4

Formula:  $C_9H_{11}NO_3$

Molecular Weight: 181.21 g/mol

EC No.: 200-460-4

Ingredient	CAS Number	Percent	Hazardous
L-Tyrosine	60-18-4	>99 %	No exposure limits established by OSHA or ACGIH

#### 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b>
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

#### 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let product enter drains.

#### 7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide adequate ventilation at places where dust is formed. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.
Incompatibilities:	Strong oxidizing agent

Recommended Storage Temperature: Room Temperature

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): No data available

Threshold Limit Values (TLVs): No data available

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Protective gloves

Body Protection: Lab coat

Respiratory Protection: Use N95 (US) or type P1 (EN 143) dust mask.  
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off-white powder

pH (0.10 g/L): Under Development (3.0 – 5.0 suspected range)

Solubility: Slightly soluble in Water

Melting Range: 342-344 °C (Dec)

Vapor Density: No data available

Vapor Pressure: No data available

Specific Gravity: No data available

Odor: Odorless

Odor Threshold: No data available

Viscosity: No data available

Relative Density: No data available

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flammability (solid, gas): No data available

Partition coefficient:  
n-octanol/water): log Pow: -2.26 at 25 °C (77 °F)

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): No data available

Flammable Limits: Upper (%) – No data available Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: No data available

Conditions to Avoid: No data available

Incompatibles Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

## 11. TOXICOLOGICAL INFORMATION

Toxicity:	LD <sub>50</sub> (Oral-Rat)(mg/Kg)	No data available
	LD <sub>50</sub> (Oral-Mouse)(mg/Kg)	No data available
	LD <sub>50</sub> (IP-Mouse)(mg/Kg)	>1450
Carcinogenicity:	NTP:	No
	IARC:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Specific Target Organ Toxicity:	Single Exposure:	No data available
	Repeated Exposure:	No data available
Target Organs:	Kidneys, liver, skin	
Routes of Entry:	Skin and eye contact	
NIOSH/RTECS NO:	YP2275600	

***The toxicological properties of this product have not been thoroughly investigated***

## 12. ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	No data available

## 13. DISPOSAL CONSIDERATION

Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
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## 14. TRANSPORT INFORMATION

Domestic (D.O.T.):	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	Reportable Quantity:	N/A
	UN/NA:	N/A
	Labels:	N/A
International:		
IMDG:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A
IATA:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A

UN/NA: N/A

Labels: N/A

## 15. REGULATORY INFORMATION

**TSCA:** Yes

### SARA TITLE III:

Section 302 (EHS) Ingredients: No  
Section 313 Ingredients: No  
Section 304 (EHS/CERCLA) Ingredients: No  
Section 311/312 Hazard: Acute Health Hazard

**Massachusetts Right to Know Components:** This product is not on the Massachusetts Substance List (MSL).

**Pennsylvania Right to Know Components:** This product is not listed on the Pennsylvania Code's Hazardous Substance List (Chapter 323).

**New Jersey Right to Know Components:** This product is not listed amongst the New Jersey Right to Know Hazardous Substance Fact Sheets

**California Prop. 65 Components:** This product is not known to the State of California to cause cancer or reproductive toxicity.

## 16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Flammability	Physical Hazard	Personal Protection
	2	0	0	B
NFPA Rating:	Health Hazard	Fire Hazard	Instability	Special Hazard
	2	0	0	

***PhytoTechnology Laboratories®* provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *PhytoTechnology Laboratories®* shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

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