



# *L*-4-Hydroxyphenyl-d<sub>4</sub>-alanine

# Section 1. Chemical product and company identifications

Product code: D-2599 Chemical formula:  $C_9H_7D_4NO_3$ CAS: 62595-14-6 CAS (unlabelled): 60-18-4 Synonyms: *L*-Tyrosine, *p*-Hydroxyphenyl-*L*-alanine, H-*L*-Tyr-OH

#### Supplier / Manufacturer:

# C/D/N Isotopes Inc.

In case of emergency: TOXYSCAN HOTLINE: 1-855-780-0599

88 Leacock Street Pointe-Claire (Québec) H9R 1H1 Phone: 514-697-6254 Toll-Free (Canada & USA): 1-800-565-4696 Fax: 514-697-6148 Website: www.cdnisotopes.com

# Section 2. Hazards identifications

Physical state: SolidWarning: Causes skin irritation. Causes serious eye irritation.Routes of entry: Inhalation, ingestion, skin and eyes

#### GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

GHS Classification: GHS Label elements:	<ul> <li>Skin irritation (Category 2)</li> <li>Eye irritation (Category 2A)</li> <li>Specific target organ toxicity - single exposure (Category 3), Respiratory system</li> <li>Pictograms:</li> </ul>
	- Signal word: Warning
Hazards statement:	- H315 Causes skin irritation. - H319 Causes serious eye irritation. - H335 May cause respiratory irritation.
Precautionary statement:	<ul> <li>P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</li> <li>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</li> <li>P302 + P350 IF ON SKIN: Wash with plenty of soap and water.</li> <li>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P317 Get medical help.</li> </ul>

### Section 3. Composition and information on ingredients

<u>Name</u>	CAS	Concentration %
L-4-Hydroxyphenyl-d₄-alanine	62595-14-6	> 98

# Section 4. First aid measures

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. **Skin contact:** Wash off with soap and plenty of water. Consult a physician. **Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. **Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

# Section 5. Firefighting measures

Flammability of the product: Not flammable or combustible.
Lower explosion limit: No data available.
Upper explosion limit: No data available.
Auto-ignition temperature: No data available.
Flash point: No data available.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

### Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

# Section 7. Handling and storage

**Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation. **Storage:** Store at room temperature. Adequate ventilation.

# Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Skin/body:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

# Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 181.19 g/mol Physical status: Solid Color: White to off-white Odour: No data available Density: No data available Melting point: 290 °C (554 °F) Boiling point: No data available Vapour pressure: No data available Vapour density: No data available Partition coefficient (octanol/water): log Pow: -2.26 Water solubility: 0.48 g/L

# Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.
 Incompatibility: Strong oxidizing agents.
 Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
 Reactivity conditions: No data available.

# Section 11. Toxicological information (unlabelled)

Toxicological data: L-Tyrosine

#### Information on ingredients:

<u>Name</u>	CAS	<u>LD50</u>	<u>LC<sub>50</sub></u>
L-Tyrosine	60-18-4	Intraperitoneal - Mouse - > 1,450 mg/kg	No da

**Potential acute effects** 

- Eyes: Causes serious eye irritation.
- Skin: May be harmful if absorbed through skin. Causes skin irritation.
- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion:** May be harmful if swallowed.

#### **Potential chronic effects**

- **Carcinogenic effects:** 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.

data available

- Mutagenic effects: No data available.

- Teratogenic effects: No data available.

- Medical conditions aggravated by overexposure: No data available.

# Section 12. Ecological information

Ecological data:					
<u>Name</u>	Results	Species	Period		
L-Tyrosine	No data available				
Effects on environment: No data available. Mobility: No data available. Environmental precautions: No data available.					

# Section 13. Disposal considerations

Persistence and degradability: No data available. Bioaccumulative potential: No data available.

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

# Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Not dangerous goods UN number: None Class: None Packaging group: None

Additional information: None

# Section 15. Regulatory information

UNITED STATES: NFPA classification



Health: 2 Flammable: 0 Reactivity: 0 Special conditions: None

#### Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

#### **U.S. Federal regulations:**

TSCA 8(b) inventory: *L*-Tyrosine SARA 302/304/311/312 extremely hazardous substances: Not Listed SARA 302/304 emergency planning and notification: Not Listed SARA 302/304/311/312 hazardous chemicals: Not Listed SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard: Not Listed CWA (Clean Water Act) 307: Not Listed CWA (Clean Water Act) 311: Not Listed CAA (Clean Air Act) 112 accidental release prevention: Not Listed CAA (Clean Air Act) 112 regulated flammable substances: Not Listed CAA (Clean Air Act) 112 regulated toxic substances: Not Listed

#### State regulations:

DEA List I Chemicals (Precursor Chemicals): Not Listed DEA List II Chemicals (Essential Chemicals): Not Listed Substances in Massachusetts: Not Listed Dangerous substances in New Jersey: Not Listed New York – Dangerous substances with acute effects: Not Listed Dangerous substances in Pennsylvania – right to know: Not Listed

#### WHMIS (Canada):



D2B - Toxic material causing other toxic effects

# Section 16. Additional information

#### **References:**

- ANSI Z400.1, MSDS Standard, 2001.
- Manufacturer's Material Safety Data Sheet.
- 29CFR Part1910.1200 OSHA MSDS Requirements.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
- Federal act on the controlled products
- Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2002.
- Toxicological repertory, HSC.
- Material safety data sheet from the components.

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#### Elaborated by: Toxyscan Inc., 1-866-780-0599

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