



## Safety Data Sheet

### Matrix

Revised: September 2, 2021

#### Section 1: Identification:

**Product Name:** Matrix –  $\alpha$ -cyano-4-hydroxycinnamic acid

**Use Restrictions:** For *in vitro* use only. Not for diagnostic or therapeutic use. This is not a medical device.

**Contact:** Glycopath Inc.  
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**CAS Registry Number:** 28166-41-8

**Formal Name:** 2-cyano-3-(4-hydroxyphenyl)-2-propenoic acid

**Product Description:** Our Matrix is supplied as a crystalline solid.

**Molecular Formula:**  $C_{10}H_7NO_3$

**Formula Weight:** 189.2

**Storage Instructions:** Matrix is shipped at room temperature, and upon arrival should be stored at  $-20^{\circ}C$  in the dark.

**Usage:** Matrix is used to facilitate glycan ionization in matrix-assisted laser desorption ionization mass spectrometry applications.



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### Section 2: Hazard(s) Identification:

GHS Symbol:



GHS Signal Word: Warning

**GHS Hazard**

H315: Causes skin irritation.

**Phrases:**

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation

**GHS Precaution**

**P261: Avoid breathing (dust/fume/gas/mist/vapors/spray)**

**Phrases:**

**P264: Wash (hands) thoroughly after handling**

**P272: Contaminated work clothing should not be allowed out of the workplace.**

**P280: Wear (Protective gloves/protective clothing/eye protection/face protection).**

**GHS Response**

P302+352: IF ON SKIN: Wash with plenty of soap and water.

**Phrases:**

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: 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.

P332+313: If skin irritation occurs, seek medical attention.

P333+313: If skin irritation or rash occurs, seek medical advice/attention.

**Adverse Human  
Health Effects and  
Symptoms:**

Causes serious eye irritation.

Materials may be irritating to mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestions, or skin absorption.

May cause respiratory system irritation.

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



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#### Section 3: Composition/Information on Ingredients:

CAS# / RTECS#	Hazardous Components	Concentration	EC No. / EC Index No.	GHS Classification
28166-41-8 NA	Alpha-Cyano-4-Hydroxycinnamic Acid	100%	247-879-1 / NA	Skin Corr. 2: H315 Eye Damage 2: H319 STOT (SE) 3: H335 Skin Sens. 1B: H317

#### Section 4: First Aid Measures:

##### First Aid Measures:

Inhalation: Remove person to fresh air. If inflammation occurs seek medical attention.

Skin Contact: Immediately wash skin with soap and water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by a medical professional.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

#### Section 5: Fire Fighting Measures:

##### Fire-Fighting Measures:

**Suitable extinguishing Media:** Use alcohol resistant foam, carbon dioxide, water or dry chemical spray. Use water spray to cool fire-exposed containers.

**Unsuitable extinguishing Media:** A solid water stream may be inefficient

Questions? Contact [sales@glycopath.com](mailto:sales@glycopath.com)

[www.glycopath.com](http://www.glycopath.com)



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#### Section 6: Accidental Release Measures:

**Personal Precautions** Avoid raising and breathing dust and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**Environmental Precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Methods and Materials for Containment and Cleaning Up:** Contain spill and collect as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

#### Section 7: Handling and Storage:

**Handling Precautions:** Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged or repeated exposure

**Storage Precautions:** Keep container tightly closed. Store in accordance with information listed on the product insert.

#### Section 8: Exposure Controls/Personal Protection:

**Appropriate Engineering Controls:** Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits.

**Personal Protective Equipment:**  
**Eye Protection:** Safety glasses  
**Protective Gloves:** Compatible chemical-resistant gloves  
**Other Protective Clothing:** Lab Coat  
**Respiratory Equipment:** NIOSH approved respirator, as conditions warrant.



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#### Section 8: Exposure Controls/Personal Protection (continued):

**Work/ Hygienic/ Maintenance Practices:** Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower. Wash thoroughly after handling.

#### Section 9: Physical and Chemical Properties:

**Appearance:** A crystalline solid.

**Odor and Odor Threshold:** No odor.

**pH:** No data.

**Melting Point/ Freezing Point:** No data.

**Initial Boiling Point and Boiling Range:** No data.

**Flash Point:** No data.

**Evaporation Rate:** No data.

**Flammability:** No data.

**Vapor Pressure:** No data.

**Solubility:** ~100 ug/mL in a 1:5 solution of DMSO:PBS (pH 7.2); ~30mg/mL in DMSO & DMF

**Reactivity:** No data available.



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#### Section 9: Physical and Chemical Properties (Continued):

**Partition Coefficient: n-Octanol/water** No data.

**Auto-ignition Temperature:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

#### Section 10: Stability and Reactivity:

**Reactivity:** No data available.

**Chemical Stability:** This product is chemically stable.

**Stability Notes:** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will not occur

**Conditions to Avoid:** No specific data.

**Incompatible Materials:** Acid anhydrides and strong acids.

**Hazardous Decomposition or Byproducts:** Carbon dioxide, carbon monoxide, hydrogen cyanide and nitrogen oxides



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#### Section 11: Toxicological Information:

The toxicological effects of this product have not been thoroughly studied.

CAS#	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
28166-41-8	Alpha-Cyano-4-Hydroxycinnamic Acid	n.a.	n.a.	n.a.	n.a.

#### Section 12: Ecological Information:

**Toxicity:** Avoid release into environment. Runoff from fire control or dilution water may cause pollution

**Persistence and Degradability:** No data available.

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Results of PBT and vPvB assessment:** No data available.

**Other Adverse Effects:** No data available.

#### Section 13: Disposal Considerations:

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.



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#### Section 14: Transportation Information:

**Land Transport (US DOT):** Not dangerous goods.

**Land Transport (European ADR/RID):** Not dangerous goods.

**Air Transport (ICAO/IATA):** Not dangerous goods.

**Additional Transport Information:** Transport in accordance with local, state and federal regulations.

#### Section 15: Regulatory Information:

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S 313 (TRI)
28166-41-8	Alpha-Cyano-4-Hydroxycinnamic Acid	No	No	No

CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists:
28166-41-8	Alpha-Cyano-4-Hydroxycinnamic Acid	CAA HAP, ODC: No. CWA NPDES: No. TSCA: No. CA PROP.65: No.

#### Section 16: Other Information:

The above information is supplied in good faith and is believed to be correct. It does not claim to be all inclusive and is intended to be used only as a guide. Final determination of the suitability of any material is the sole responsibility of the user. GlycoPath Inc. shall not be held responsible for any damage resulting from handling or contact with the above product. This product is intended for in vitro research only.