

Hazardous according to criteria of Australian Safety and Compensation Council

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** **α -Cyano-4-hydroxycinnamic acid (HCCA)**
- **CAS Number:**
28166-41-8
- **EC number:**
248-879-1
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bruker Daltonik GmbH
Fahrenheitstrasse 4
D-28359 Bremen / Germany
Tel.: +49(421) 2205-0
Fax : +49(421) 2205-100
E-mail: care@bdal.de
- **Informing department:**
Bruker Daltonik GmbH
Tel.: +49 (421) 2205-240
- **Emergency telephone number:**
Emergency Phone : +61 3 9474 7000 ; 1800 278537 ; +49 421 2205 0
Tel.: +49 (361)730730
Gemeinsames Giftinformationszentrum (GGIZ) (Poison Information Center)

2 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Designation:**
28166-41-8 2-cyano-3-(4-hydroxyphenyl)acrylic acid
- **Identification number(s):**
- **EC number:** 248-879-1

3 Hazards identification

- **Classification of the substance or mixture**



- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements**
The substance is classified and labelled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

(Contd. on page 2)

Safety data sheet
According to 91/155 EEC and NOHSC

Printing date 13.09.2011

Revision: 18.05.2011

Trade name: α -Cyano-4-hydroxycinnamic acid (HCCA)

(Contd. of page 1)

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

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

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· **General information** Instantly remove any clothing soiled by the product.

· **After inhalation**

Supply fresh air.

Seek medical treatment in case of complaints.

· **After skin contact**

If skin irritation continues, consult a doctor.

Instantly wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

· **After swallowing**

Rinse the mouth with water immediately

Instantly call for doctor.

· **Information for doctor** No particular measures are known - treat according to symptoms.

5 Firefighting measures

· **Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

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

Formation of toxic gases is possible during heating or in case of fire.

Nitrogen oxides (NO_x)

Hydrogen cyanide (HCN)

Carbon dioxide (CO₂)

Carbon monoxide (CO)

· **Protective equipment:** Wear self-contained breathing apparatus.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

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

Ensure adequate ventilation

Avoid causing dust.

Wear protective clothing.

Avoid contact with eyes and skin.

· **Environmental precautions:** Do not allow product to reach sewage system or water bodies.

· **Methods and material for containment and cleaning up:**

Collect mechanically.

Avoid causing dust.

Collect in a suitable container and dispose of as described at paragraph 13.

Ensure adequate ventilation.

· **Reference to other sections**

Clean the accident area carefully.

(Contd. on page 3)

Safety data sheet
According to 91/155 EEC and NOHSC

Printing date 13.09.2011

Revision: 18.05.2011

Trade name: α -Cyano-4-hydroxycinnamic acid (HCCA)

(Contd. of page 2)

See Section 8 for information on personal protection equipment.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Keep containers tightly sealed.
Prevent formation of dust.
Provide suction extractors if dust is formed.
Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in unopened original containers.
Protect from dampness and humidity.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
Store container in a well ventilated position.
Protect from the effects of light.
Avoid contact with air / oxygen.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Take off immediately all contaminated clothing
- **Breathing equipment:**
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
- **Recommended filter device for short term use:**



Filter P1

- **Protection of hands:**



Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Preventive skin protection by use of skin-protecting agents is recommended.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 4)

Safety data sheet
According to 91/155 EEC and NOHSC

Printing date 13.09.2011

Revision: 18.05.2011

Trade name: α -Cyano-4-hydroxycinnamic acid (HCCA)

(Contd. of page 3)

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:**

Leather gloves

Strong gloves

· **Eye protection:**



Tightly sealed safety glasses.

· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: Powder

Colour: Light yellow

· **Odour:** Characteristic

· **Change in condition**

Melting point/Melting range: 245-250°C (473-482 °F)

Boiling point/Boiling range: Not determined

· **Flash point:** Not applicable

· **Inflammability (solid, gaseous)** Product is not inflammable.

· **Danger of explosion:** Product is not explosive.

· **Density** Not determined

· **Solids content:** 100.0 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Incompatible materials:**

strong acids

Acid anhydrides

· **Hazardous decomposition products:**

in the event of fire:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO_x)

Hydrogen cyanide (prussic acid)

11 Toxicological information

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritant effect.

· **Sensitization:** No sensitizing effect known.

-AU-

(Contd. on page 5)

Safety data sheet
According to 91/155 EEC and NOHSC

Printing date 13.09.2011

Revision: 18.05.2011

Trade name: **α -Cyano-4-hydroxycinnamic acid (HCCA)**

(Contd. of page 4)

12 Ecological information

- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Ecotoxicological effects:** Not determined
- **Additional ecological information:**
- **General notes:**
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into soil.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.

- **European waste catalogue**

18 00 00	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 02 00	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 05*	chemicals consisting of or containing dangerous substances

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| · UN-Number | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | Void |
| · ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · ADR, IMDG, IATA | Void |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

- | |
|---|
| · Australian Inventory of Chemical Substances |
| Substance is not listed. |
| · Standard for the Uniform Scheduling of Drugs and Poisons |
| Substance is not listed. |

(Contd. on page 6)

Safety data sheet
According to 91/155 EEC and NOHSC

Printing date 13.09.2011

Revision: 18.05.2011

Trade name: α -Cyano-4-hydroxycinnamic acid (HCCA)

(Contd. of page 5)

· **GHS label elements**

The substance is classified and labelled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

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

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations**

· **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Changes made since last issue dated 20.12.2010 at the following points: *

· **Department issuing data specification sheet:**

IGG-AD Ingenieurbüro für Gefahrstoff- und Gefahrgutberatung

Bismarckstraße 10

D-68623 Lampertheim

Fax: 0049-(0)6206-58422 <http://www.igg-ad.de> info@igg-ad.de

· **Contact:**

Dr. U. Prinz (u.prinz@igg-ad.de)

Dipl.-Chem. H. Hinse (heidrun.hinse@igg-ad.de)

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

· *** Data compared to the previous version altered.**