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

1.1. Product identifier

Name of product  
US IVD HCCA Portioned / US IVD HCCA Portioned for MBT Galaxy
Art. No. 8604531 / 1852132

Name of substance  
2-Cyano-3-(4-hydroxyphenyl)acrylic acid (HCCA)

EC No  
248-879-1

CAS No  
28166-41-8

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended intended purpose(s)  
Laboratory chemical

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor  
Bruker Daltonik GmbH
Fahrenheitstr. 4, D-28359 Bremen
Phone +49(421)2205-0, Fax +49(421)2205-100
E-Mail care@bruker.com
Internet www.bruker.com

Advice  
Bruker Daltonik GmbH
Phone +49(421)2205-0
E-mail (competent person): care@bruker.com

1.4. Emergency telephone number

Emergency telephone number  
Phone +49(421)2205-0
This number is only available at office times.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Hazard classes and Hazard categories</th>
<th>Hazard Statements</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2</td>
<td>H315</td>
<td></td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>H319</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1B</td>
<td>H317</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>H335</td>
<td></td>
</tr>
</tbody>
</table>

Hazard statements for health hazards

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Additional hints
This mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [GHS].

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

GHS07

Signal word
Warning

Hazard statements for health hazards
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Statements

Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protection clothing/eye protection/face protection.

Response
P302 + P352 IF ON SKIN: Wash with plenty of water.
P312 Call a POISON CENTER/doctor/... if you feel unwell.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage
P405 Store locked up.

Disposal
P501 Dispose of contents/container to a licensed disposal company.

2.3. Other hazards

Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

! SECTION 3: Composition/ information on ingredients

3.1. Substances
Description
natural substance

CAS No 28166-41-8 2-Cyano-3-(4-hydroxyphenyl)acrylic acid (HCCA)
EC No 248-879-1

3.2. Mixtures
not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Remove moistened clothing immediately.
In the event of persistent symptoms receive medical treatment.
In case of inhalation
Ensure of fresh air.
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation occurs.

In case of eye contact
In case of contact with eyes rinse thoroughly with water.
Remove contact lenses
Refer to medical treatment.

In case of ingestion
Do not induce vomiting.
Call for a doctor immediately.
Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed
No information available.

4.3. Indication of any immediate medical attention and special treatment needed
No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Alcohol-resistant foam
Dry fire-extinguishing substance
Carbon dioxide
Water spray jet

Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Carbon dioxide (CO2)
Hydrogen cyanide (HCN)

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply (isolated).

Additional information
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Collect contaminated firefighting water separately, must not be discharged into the drains.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Ensure adequate ventilation.
Remove persons to safety.
Avoid dust formation.
Use personal protective clothing.
Do not breathe dust.

6.2. Environmental precautions
Do not discharge into the drains or bodies of water.

6.3. Methods and material for containment and cleaning up
Avoid dust formation.
Send in suitable containers for recovery or disposal.
After taking up the material dispose according to regulation.
Take up mechanically.

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Avoid the formation and deposition of dust.
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
Take the usual precautions when handling with chemicals.
The product should be handled with the care usual when dealing with chemicals.

General protective measures
Avoid contact with eyes and skin
Do not inhale dust.

Hygiene measures
Clean skin thoroughly after working.
Provide washing facilities at place of work.
At work do not eat, drink and smoke.
Remove soiled or soaked clothing immediately.
Keep away from food and drink.
Keep separated from food and feed.

Advice on protection against fire and explosion
Pay attention to general rules of internal fire prevention.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep in closed original container.
Further information on storage conditions
Keep container tightly closed and store at cool and dry place.
Store protected from light.
Keep container in a well-ventilated place
Protect from exposure to air/oxygen.

Storage group 11

7.3. Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No information available.

8.2. Exposure controls
Respiratory protection
For concentrations above the application limit of filter devices or at oxygen concentrations below 17 Vol% or under unclear conditions, use an insulating device.
Multi-purpose filter ABEK / P2
Respirators and components must be tested and approved to appropriate government standards such as NIOHS (US) or CEN (EU).
Short term: filter apparatus, Filter P1

Hand protection
The selection of the suitable gloves does not only depend on different material, but also on further marks of quality and varies from manufacturer to manufacturer.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.
The selected protective gloves have to meet the specifications of EU Directive 89/686 / EEC and the resultant standard EN374.
Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: Nitrile, 0,1 mm, 480 min. e.g. "Dermatril L" (KCL GmbH, Eichenzell (Germany); Email: Vertrieb@kcl.de).

Eye protection
safety goggles with side protection
For eye protection, use only equipment that has been tested and approved to regulatory standards such as NIOSH (US) or EN 166 (EU).

Other protection measures
Impermeable protective clothing

Appropriate engineering controls
Ensure good interior ventilation, if necessary exhaustion at the workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>solid</td>
</tr>
<tr>
<td>Colour</td>
<td>yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Odour threshold
not determined

### Important health, safety and environmental information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Temperature</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH value</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling temperature / boiling range</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>melting range</td>
<td>245 - 250 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td></td>
<td></td>
<td></td>
<td>Not flammable.</td>
</tr>
<tr>
<td>Vapourisation rate</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammable (solid)</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (gas)</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self ignition temperature</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility/other</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (log P O/W)</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>not determined</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solids content</td>
<td>100 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td></td>
<td></td>
<td></td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Explosive properties
The product is not explosive.

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
Reactions with strong acids.
Reacts with acid anhydrides.

10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
Substances to avoid
acid anhydrides
Acid

10.6. Hazardous decomposition products
Concerning possible decomposition products see section 5.

Thermal decomposition
Remark No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

<table>
<thead>
<tr>
<th>Value/Validation</th>
<th>Species</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>irritant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye irritation</td>
<td>irritant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>sensitizing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitization respiratory system</td>
<td>No sensitizing effects known.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Subacute Toxicity - Carcinogenicity

<table>
<thead>
<tr>
<th>Value</th>
<th>Species</th>
<th>Method</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity</td>
<td></td>
<td></td>
<td>No ingredient of this product, present in a concentration equal to or greater than 0.1%, has been identified by the IARC as a likely, possible or proven human carcinogen.</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (single exposure)
May cause respiratory irritation.

Additional information
The product should be handled with the care usual when dealing with chemicals.
Possibly harmful by inhalation, harmful if swallowed and harmful in contact with skin.
Warning, substance not yet fully tested. Further hazardous properties can not be excluded.

SECTION 12: Ecological information

12.1. Toxicity
No information available.

12.2. Persistence and degradability
No information available.

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects
General regulation
Ecological dates are not available.
Product is not allowed to be discharged into the ground water or aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recommendations for the product
Remove in accordance with local official regulations.

Recommendations for packaging
Disposal in accordance with local regulations.
Packaging that cannot be cleaned should be disposed of like the product.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA-DGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available.

Transport/further information
No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.
HazChem Code: 2[Z]

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Water hazard class 3  Manufacturer self-classification.
extremely hazardous for water

15.2. Chemical Safety Assessment
For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.

Further information
Each user is responsible for the implementation of the national special regulations.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
Please observe the following disclaimer! Our safety data sheets have been compiled according to effective EU directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.
Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.0
Sources of key data used
Data sheets of the sub-supplier.
Full text of the hazard phrases in section 3.