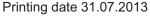
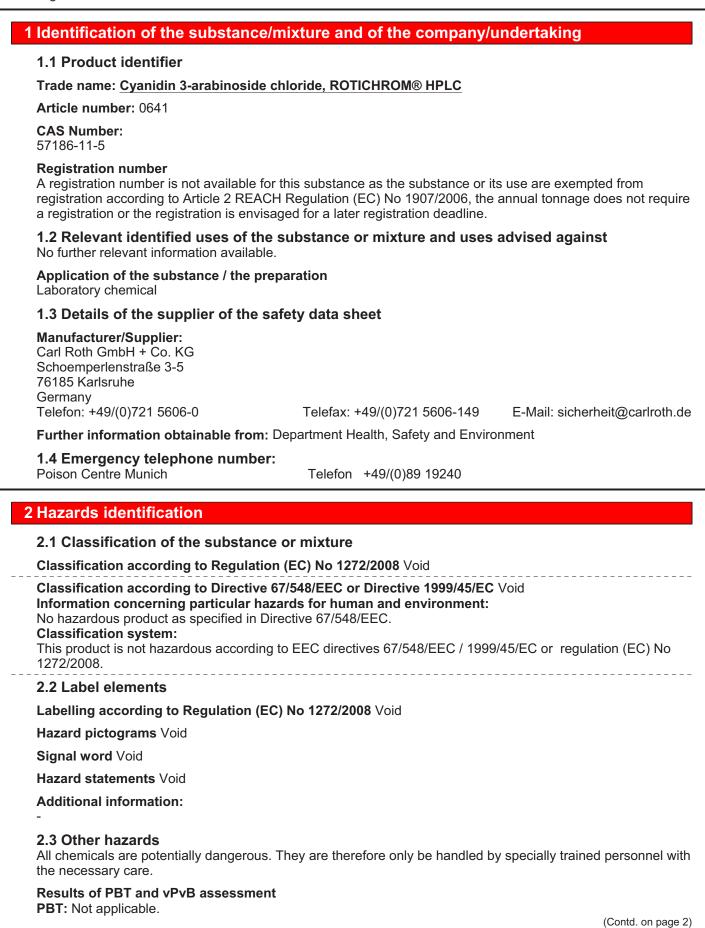
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vPvB: Not applicable.

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# 3 Composition/information on ingredients

# 3.1 Chemical characterization: Substances

CAS No. Description 57186-11-5 Cyanidin 3-arabinoside chloride

Identification number(s) Formula: C<sub>20</sub>H<sub>19</sub>ClO<sub>10</sub> Molar mass [g/mol]: 454,82

# 4 First aid measures



# 4.1 Description of first aid measures

**General information:** Remove any clothing soiled by the product.

#### After inhalation:

Supply fresh air; if there is any trouble seek medical help.

# After skin contact:

Rinse with water If skin irritation continues, consult a doctor.

#### After eye contact:

To be sure rinse opened eye under running water. If there is any trouble seek medical help.

After swallowing: Rinse out mouth and drink a glass of water. Do not induce vomiting. If there is any trouble seek medical help.

**4.2 Most important symptoms and effects, both acute and delayed** We have no description of any toxic symptoms.

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

# **5 Firefighting measures**

# 5.1 Extinguishing media

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions. CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:** For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture** In case of fire, the following can be released:

In the event of fire development of hazardous combustion gases or vapours possible. Chlorine.

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Carbon monoxide and carbon dioxide

#### 5.3 Advice for firefighters

#### **Protective equipment:**

Wear self-contained respiratory protective device. Wear fully protective suit.

# 6 Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Avoid formation of dust.

#### **6.2 Environmental precautions**

Do not allow to enter sewers/ground water or penetrate the soil.

#### 6.3 Methods and material for containment and cleaning up

Pick up mechanically. Dispose of the material collected according to regulations.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

# 7 Handling and storage

#### 7.1 Precautions for safe handling

No special precautions are necessary if used correctly.

# Information about fire - and explosion protection:

No special measures required.

#### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage:

**Requirements to be met by storerooms and receptacles:** No special requirements.

**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 receptacles.

Protect from exposure to the light.

#### Recommended storage temperature: -20 °C

**7.3 Specific end use(s)** No further relevant information available.

# 8 Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

#### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

#### Additional information:

The lists valid during the making were used as basis.

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# 8.2 Exposure controls

#### Personal protective equipment:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

#### **Respiratory protection:**



Particle filter required when dusts are generated.

#### Protection of hands:



#### Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

#### Nitrile, thickness: ≥ 0.11 mm

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.

#### Penetration time of glove material

Value for the permeation: Level  $\geq 6$ 

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

# As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, thickness:  $\geq 0.11$  mm

#### Eye protection:



Tightly sealed goggles

**Body protection:** Protective work clothing

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9.1 Information on basic physical and chemical properties		
General Information Appearance:		
Form:	Crystalline powder	
Colour:	Red-brown	
Odour:	Odourless	
Odour threshold:	No information available.	
pH-value:	No information available.	
Change in condition		
Melting point/Melting range:	No information available. No information available.	
Boiling point/Boiling range:		
Flash point:	Not applicable.	
Flammability (solid, gaseous):	No information available	
Ignition temperature:	No information available	
Decomposition temperature:	No information available	
Self-igniting:	No information available	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	No information available.	
Upper:	No information available.	
Oxidizing properties:	No information available.	
Vapour pressure:	Not applicable.	
Density:	No information evolution	
Relative density Vapour density	No Information available. No information available	
Evaporation rate	No information available	
Solubility in / Miscibility with		
water:	Soluble.	
Partition coefficient (n-octanol/wa	ter): No information available	
Viscosity:		
Dynamic: Kinematic:	No information available. No information available.	

# 10 Stability and reactivity

#### 10.1 Reactivity

No information available

# **10.2 Chemical stability**

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

#### 10.3 Possibility of hazardous reactions

Strong reaction possible with: Oxidizing agents

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# **10.4 Conditions to avoid** warmth/heat

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#### **10.5 Incompatible materials:** No information available.

# 10.6 Hazardous decomposition products:

In case of fire: see item 5.

# **11 Toxicological information**

# 11.1 Information on toxicological effects

#### Acute toxicity:

**LD/LC50 values relevant for classification:** Quantitative data on the toxicity of this product are not available.

#### Primary irritant effect:

on the skin: No information available.

on the eye: No information available.

**after inhalation:** No information available.

Sensitization: No sensitizing effects known.

# CMR effects:

Germ cell mutagenicity: No known significant effects or critical hazards. Carcinogenicity: No known significant effects or critical hazards. Reproductive toxicity: No known significant effects or critical hazards.

# Aspiration hazard:

No aspiration toxicity classification.

# Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

# Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

# Further information:

The product should be handled with the care usual when dealing with chemicals.

# **12 Ecological information**

# 12.1 Toxicity

# Aquatic toxicity:

Quantitative data on the ecological effect of this product are not available.

# 12.2 Persistence and degradability

No further relevant information available.

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#### **12.3 Bioaccumulative potential** No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

#### **Ecotoxical effects:**

**Remark:** Do not allow to enter waters, waste water, or soil!

#### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable. **vPvB:** Not applicable.

#### 12.6 Other adverse effects

No further relevant information available.

# **13 Disposal considerations**

#### Waste treatment methods

#### Recommendation

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

#### **Uncleaned packaging:**

# Recommendation:

Disposal according to official regulations. **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

# **14 Transport information**

14.1 UN-Number			
ADR, ADN, IMDG, IATA	Void		
14.2 UN proper shipping name			
ADR, ADN, IMDG, IATA	Void		
14.3 Transport hazard class(es)			
ADR, ADN, IMDG, IATA Class	Void		
14.4 Packing group			
ADR, IMDG, IATA	Void		
14.5 Environmental hazards:			
Marine pollutant:	No		
14.6 Special precautions for user	Not applicable.		
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.			
UN "Model Regulation":	-		
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# 15 Regulatory information

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

#### National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.

#### Waterhazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

# **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing MSDS: Department: Health, Safety and Environment

Contact: Herr Heine

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) IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LD50\*: Lethal Dose, 50 percent (Not relevant for classification)

LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)