

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

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

### 1.1 Product identifier

**Trade name:** KHELLIN ≥98%, for biochemistry**Article number:** 5911**CAS Number:**

82-02-0

**EC number:**

201-392-8

### Registration number

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

#### Application of the substance / the mixture

Laboratory chemical

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)**Further information obtainable from:** Department Health, Safety and Environment

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Acute Tox. 3 H301 Toxic if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T; Toxic

R25: Toxic if swallowed.

Xi; Irritant

R38: Irritating to skin.

**Additional information:** Note, not yet fully tested.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

(Contd. on page 2)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 1)

**Hazard pictograms**

GHS06

**Signal word** Danger**Hazard statements**

H301 Toxic if swallowed.

H315 Causes skin irritation.

**Precautionary statements**

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P405 Store locked up.

**Additional information:**

-

**2.3 Other hazards**

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.1 Chemical characterisation: Substances****CAS No. Description**

82-02-0 khellin

**Identification number(s)****EC number:** 201-392-8**Formula:** C<sub>14</sub>H<sub>12</sub>O<sub>5</sub>**Molar mass [g/mol]:** 260,24**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

**After inhalation:**

Take affected persons into fresh air and keep quiet.

If breathing is difficult, give oxygen. Seek medical treatment.

(Contd. on page 3)

GB

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 2)

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.  
Seek medical treatment in case of complaints.

**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 then drink water.  
Call for a doctor immediately and show the container or label.

**4.2 Most important symptoms and effects, both acute and delayed**

Irritations  
Allergic reactions  
Headache  
insomnia  
Dizziness  
Nausea

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing agents:** CO<sub>2</sub>, powder, foam or water spray.

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

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear personal protective equipment.

Do not breathe dust.

Avoid contact with the eyes and skin.

**6.2 Environmental precautions**

Do not allow product to reach sewage system or any water course.

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

Pick up mechanically.

Avoid formation of dust

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.

(Contd. on page 4)

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

See Section 13 for disposal information.

(Contd. of page 3)

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide suction extractors if dust is formed.

Keep containers, equipment and working place clean.

### Information about fire - and explosion protection:

Risk of dust explosion if enriched with fine dust in the presence of air.

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

#### Storage:

#### Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

#### Information about storage in one common storage facility:

Store away from foodstuffs.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in dry conditions.

Store under lock and key and with access restricted to technical experts or their assistants only.

**Recommended storage temperature:** 15 - 25 °C

### 7.3 Specific end use(s)

No further relevant information available.

## SECTION 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.

### 8.2 Exposure controls

#### Personal protective equipment:

#### General protective and hygienic measures:

Do not eat, drink or smoke while working.

Do not breathe dust.

Avoid contact with the eyes and skin.

Clean skin thoroughly immediately after handling the product.

#### 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.

(Contd. on page 5)

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 4)

**Respiratory protection:**

Required when dusts are generated: filter P2-P3.

When selecting your respiratory unit: Consider the "Rules for the use of respiratory protection equipment" (BGR190).

**Protection of hands:**

Protective gloves

Check protective gloves prior to each use for their proper condition.

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 ≥ 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, thickness: ≥ 0.11 mm

**Eye protection:**

Tightly sealed goggles

**Body protection:**

Protective work clothing

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Crystalline powder
<b>Colour:</b>	white to yellowish
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	Not determined.

**pH-value:** No information available.

**Change in condition**

**Melting point/Melting range:** 150-154 °C

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 5)

<b>Boiling point/Boiling range:</b>	No information available.
<b>Flash point:</b>	No information available
<b>Flammability (solid, gaseous):</b>	No information available
<b>Ignition temperature:</b>	No information available
<b>Decomposition temperature:</b>	No information available
<b>Self-igniting:</b>	No information available
<b>Danger of explosion:</b>	Not classified als explosive.
<b>Explosion limits:</b>	
<b>Lower:</b>	No information available.
<b>Upper:</b>	No information available.
<b>Oxidizing properties:</b>	No information available.
<b>Vapour pressure:</b>	No information available
<b>Density:</b>	No information available.
<b>Vapour density</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Solubility in / Miscibility with water:</b>	Slightly soluble.
<b>Partition coefficient (n-octanol/water):</b>	3.0 log POW (TOXNET)
<b>Viscosity:</b>	
<b>Dynamic:</b>	No information available.
<b>Kinematic:</b>	No information available.
<b>9.2 Other information</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The following applies in general to flammable organic substances and preparations: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 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

Reacts with strong oxidising agents.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials:

No information available.

### 10.6 Hazardous decomposition products:

In case of fire: see item 5.

(Contd. on page 7)

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

Trade name: KHELLIN ≥98%, for biochemistry

(Contd. of page 6)

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values relevant for classification:

Oral	LD <sub>50</sub>	68.8 mg/kg (rat) (TOXNET)
------	------------------	---------------------------

#### Primary irritant effect:

##### **on the skin:**

Irritant to skin and mucous membranes.

##### **on the eye:**

Slight irritations

##### **after inhalation:**

Intensive contact with dusts may lead to irritations of the eyes and the respiratory tract.

#### Sensitisation:

No sensitising effects known.

#### CMR effects:

##### **Germ cell mutagenicity:**

No information available.

##### **Carcinogenicity:**

No information available.

##### **Reproductive toxicity:**

No information available.

#### Aspiration hazard:

Not applicable.

#### 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:

##### After swallowing:

Absorption

##### After absorption:

Headache

Dizziness

Nausea

##### After uptake of large quantities:

gastrointestinal complaints

Damage of nervous system.

Death

#### Further information:

To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.

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

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

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

(Contd. on page 8)

# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 7)

**12.2 Persistence and degradability**

No further relevant information available.

**12.3 Bioaccumulative potential**

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected (log POW ≤4).

**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.

## SECTION 13: Disposal considerations

**Waste treatment methods****Recommendation**

This material and its container must be disposed of as hazardous waste.

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.

## SECTION 14: Transport information

**14.1 UN-Number**

ADR, IMDG, IATA

UN2811

**14.2 UN proper shipping name**ADR  
IMDG, IATA2811 TOXIC SOLID, ORGANIC, N.O.S. (khellin)  
TOXIC SOLID, ORGANIC, N.O.S. (khellin)**14.3 Transport hazard class(es)**

ADR, IMDG, IATA

**Class**  
**Label**6.1 Toxic substances.  
6.1**14.4 Packing group**

ADR, IMDG, IATA

III

(Contd. on page 9)



# Safety data sheet

according to 1907/2006/EC, Article 31



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 8)

<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Warning: Toxic substances.
<b>Danger code (Kemler):</b>	60
<b>EMS Number:</b>	F-A,S-A
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
Limited quantities (LQ)	5 kg
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
Transport category	2
Tunnel restriction code	E
<b>IMDG</b>	
Limited quantities (LQ)	5 kg
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 g
	Maximum net quantity per outer packaging: 1000 g
<b>UN "Model Regulation":</b>	UN2811, TOXIC SOLID, ORGANIC, N.O.S. (khellin), 6.1, III

## SECTION 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.

Employment restrictions concerning pregnant and lactating women must be observed.

#### Breakdown regulations:

#### Waterhazard class:

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 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:

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

ICAO: International Civil Aviation Organisation

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

(Contd. on page 10)

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**



Printing date 18.03.2015

Version number 3

Revision: 18.03.2015

**Trade name: KHELLIN ≥98%, for biochemistry**

(Contd. of page 9)

IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
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)  
Acute Tox. 3: Acute toxicity, Hazard Category 3  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

GB