

Aaron Chemistry GmbH

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 6.0 Revision Date 29.07.2016 Print Date 08.11.2016 GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

1.1	Product identifiers Product name	Ketoglutaric acid		
	Product Number Brand REACH No. CAS-No.	093 ron Chemistry GmbH registration number is not available for this substance as its uses are exempted from registration, the annual tonna quire a registration or the registration is envisaged for a la gistration deadline. 8-50-7	age does not	
1.2				
	Identified uses	boratory chemicals, Manufacture of substances		
1.3				
	Company	ron Chemistry GmbH n Fischweiher 41-43 82481 Mittenwald		
	Telephone Fax E-mail address	9 8823 917521 9 8823 917523 o@aaron-chemistry.de		
1.4	Emergency telephone number			
	Emergency Phone #	49 8823 917521		

SECTION 2: Hazards identification

Classification of the substance or mixture

2.1

	Classification according to Regulation (EC) No 1272/2008 Serious eye damage (Category 1), H318			
	For the full text of the H-Statements mentioned in this Section, see Section 16.			
2.2	2.2 Label elements			
	Labelling according Regulation (EC) No 1272/2008 Pictogram			
	Signal word	Danger		
Hazard statement(s) H318		Causes serious eye damage.		
	Precautionary statement(s) P280 P305 + P351 + P338 + P310	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove		
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contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Supplemental Hazard Statements

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	2-Oxoglutaric acid 2-Oxopentanedioic acid alpha-Ketoglutaric acid
Formula Molecular weight CAS-No. EC-No.	:	C ₅ H ₆ O ₅ 146,10 g/mol 328-50-7 206-330-3

Hazardous ingredients according to Regulation (EC) No 1272/2008

none

Component		Classification	Concentration	
2-Oxoglutaric acid				
CAS-No. EC-No.	328-50-7 206-330-3	Eye Dam. 1; H318	<= 100 %	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- 5.2 Special hazards arising from the substance or mixture No data available
- **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: Fine crystals and fragments Colour: white
b)	Odour	No data available
c)	Odour Threshold	No data available
d)	pН	No data available
e)	Melting point/freezing point	Melting point/range: 114 - 117 °C
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower	No data available
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flammability or explosive limits

- k) Vapour pressure No data available Vapour density No data available D No data available m) Relative density n) Water solubility 100 g/l at 20 °C Partition coefficient: n-No data available o) octanol/water p) Auto-ignition No data available temperature q) Decomposition No data available temperature r) Viscosity No data available s) Explosive properties No data available Oxidizing properties No data available t) Other safety information
- 9.2 Other safety information No data available

SECTION 10: Stability and reactivity

- 10.1 Reactivity No data available
- **10.2 Chemical stability** Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions No data available
- **10.4 Conditions to avoid** No data available
- **10.5** Incompatible materials Bases, Oxidizing agents, Reducing agents
- Hazardous decomposition products
 Hazardous decomposition products formed under fire conditions. Carbon oxides
 Other decomposition products No data available
 In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity No data available

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity No data available

Carcinogenicity

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IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure No data available

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

Additional Information

RTECS: Not available

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

SECTION 12: Ecological information

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability No data available
- **12.3 Bioaccumulative potential** No data available
- 12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1	UN numbe ADR/RID:	-	IMDG: -	IATA: -	
14.2		shipping name Not dangerous goods Not dangerous goods Not dangerous goods			
14.3	Transport ADR/RID:	hazard class(es) -	IMDG: -	IATA: -	
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14.4	Packaging group ADR/RID: -	IMDG: -	IATA: -
14.5	Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user No data available		

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H318 Causes serious eye damage.

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Aaron Chemistry GmbH shall not be held liable for any damage resulting from handling or from contact with the above product. See www.aaron-chemistry.de