



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

Acid citricum anhydr fine 51N

Item-No. 06014500

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

#### **Use of the substance/preparation**

food additive, Manufacture of pharmaceutical products, Manufacture of cosmetics, industry

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

#### **Address**

Hänseler AG

Industriestrasse 35

9101 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible  
for this SDS

### **1.4. Emergency telephone number**

Switzerland :145 / Abroad +41 (0)44 251 51 51

## **2. Hazards identification**

### **2.1. Classification of the substance or mixture**

#### **Classification (Regulation (EC) No. 1272/2008)**

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2 H319

#### **Classification in accordance with EC directives**

Classification Xi, R36

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

##### **Hazard pictograms**



##### **Signal Word**

Warning

##### **Hazard statements**

H319 Causes serious eye irritation.

##### **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

#### **Labelling in accordance with EC directives 1999/45/EC and 67/548/EEC**



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

The product is classified and labelled in accordance with EC directives/the relevant national laws.

**Hazard symbols**

Irritant

**R phrases**

36 Irritating to eyes.

**S phrases**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

**3. Composition/information on ingredients****Chemical characterization**

2-Hydroxy-1,2,3-propanetricarboxylic acid

**Molecular weight**

Value	192.2	g/mol
-------	-------	-------

**Hazardous ingredients****citric acid**

CAS No. 77-92-9

EINECS no. 201-069-1

Concentration &gt;= 50 %

Classification Xi

Classification (Regulation (EC) No. 1272/2008)	Eye Irrit. 2	H319
--	--------------	------

**4. First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated, soaked clothing immediately and dispose of safely.

**After inhalation**

Remove the casualty into fresh air and keep him calm. Irregular breathing/no breathing: artificial respiration. If necessary, give oxygen. Do not use mouth-to-mouth or mouth-to-nose resuscitation. Summon a doctor immediately. If the patient is likely to become unconscious, place and transport in stable sideways position. Keep breathing passages free.

**After skin contact**

Wash off immediately with soap and water. Don't use solvents. Remove contaminated, soaked clothing immediately and dispose of safely. Consult a doctor if skin irritation persists.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. Summon a doctor immediately.

**After ingestion**



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

Rinse mouth thoroughly with water. Take affected person to fresh air. If individual is drowsy or unconscious place in recovery position (on left side, with head down). Do not allow to drink water. Do not induce vomiting. Summon a doctor immediately. Never give anything by mouth to an unconscious person. If individual is drowsy or unconscious place in recovery position (on left side, with head down).

**Self-protection of the first aider**

No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

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

Coughing, Irritating to respiratory system.

**4.3. Indication of any immediate medical attention and special treatment needed****Hints for the physician / treatment**

Treat symptomatically

**5. Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water, Foam

**Non Suitable extinguishing media**

water jet.

**5.2. Special hazards arising from the substance or mixture**

Forms explosive mixture with air are possible. In the event of fire the following can be released: Carbon monoxide (CO); Carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for firefighters****Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Wear protective clothing.

**Other information**

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

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

Keep away unprotected persons. Avoid contact with eyes and skin. Keep away from sources of ignition - No smoking. Avoid breathing dust. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Pick up mechanically. Avoid raising dust. Clean contaminated surfaces thoroughly with water. When picked up, treat material as prescribed under heading "Disposal".

**7. Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Avoid dust formation. Take precautionary measures against electrostatic loading. Wear protective equipment. Avoid contact with skin, eyes and clothing. Avoid inhaling dusts/ billows/ steams. Isolate from



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

sources of heat, sparks and open flame. Use only in well ventilated areas. Wear respiratory protection when spraying. Keep container tightly closed. Electrical equipment should be protected to the appropriate standard.

**Advice on protection against fire and explosion**

High dust explosion hazard.

**7.2. Conditions for safe storage, including any incompatibilities****Recommended storage temperature**

Value	10	30	°C
-------	----	----	----

**Requirements for storage rooms and vessels**

Keep only in the original container.

**Hints on storage assembly**

Do not store with oxidizing agents.

**Further information on storage conditions**

Protect from heat and direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from sources of ignition. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**8. Exposure controls/personal protection****8.2. Exposure controls****General protective and hygiene measures**

Wash thoroughly after work. At work do not eat, drink, smoke or take drugs. Wash hands and face before breaks and after work. Remove contaminated, soaked clothing immediately and dispose of safely. Hold eye wash fountain available. Hold emergency shower available.

**Respiratory protection**

If workplace limits are exceeded, a respirations protection approved for this particular job must be worn. Self-contained breathing apparatus. Respiratory protection mask with combination filter A/P2

**Hand protection**

Chemical resistant gloves

Appropriate Material	nitrile rubber - NBR
----------------------	----------------------

Penetrating time	> 8 h
------------------	-------

**Eye protection**

Safety glasses with side protection shield

**Body protection**

Protective clothing

**9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Form</b>	solid
<b>Colour</b>	white
<b>Odour</b>	odourless

**pH**

Value	2.2	
Concentration/H <sub>2</sub> O	10	g/l
Value	1.7	
Concentration/H <sub>2</sub> O	100	g/l
Value	1.8	
Concentration/H <sub>2</sub> O	50	g/l



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

**Melting point**

Value 153 °C

**Boiling point**

Value &gt; 175 °C

**Flash point**Value 345 °C  
method Tag closed cup**Vapour pressure**Value < 0.001 hPa  
Temperature 20 °C**Density**Value 1.665  
Temperature 20 °C  
Remarks Relative Density according specification**Solubility in water**Value -576 to 1330 g/l  
Temperature 20 °C**Solubility in other solvents**Ethanol  
Remarks soluble  
Diethyl ether  
Remarks soluble  
Petrol  
Remarks insoluble  
Trichloromethane (Chloroform)  
Remarks insoluble**Octanol/water partition coefficient (log Pow)**

log Pow -1.72

**Thermal decomposition**

Value &gt; 175 °C

**Viscosity****dynamic**

Value 6.5 mPa.s

**10. Stability and reactivity****10.4. Conditions to avoid**

Keep away from sources of heat and ignition. Sparks. Flames. Avoid dust formation.

**Thermal decomposition**

Value &gt; 175 °C

**10.5. Incompatible materials**

Reducing agents, Reactions with acids. Alkalies

**10.6. Hazardous decomposition products****Other information**

chemical stable

**11. Toxicological information**



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

## 11.1. Information on toxicological effects

### Acute oral toxicity

Species	mouse		
LD50	5400		mg/kg
Species	rat		
LD50	3000		mg/kg

### Skin corrosion/irritation

Species	rabbit		
Duration of exposure	72		h
valuation	slightly irritant		

### Serious eye damage/irritation

Species	rabbit		
Duration of exposure	72		
valuation	strongly irritant		

### Mutagenicity

valuation No mutagenicity in the Ames-test.

### Carcinogenicity

Route of exposure oral  
Remarks No evidence available on carcinogenicity.

### Experience in practice

Irritation

## 12. Ecological information

### 12.1. Toxicity

#### Fish toxicity

Species	golden orfe ( <i>Leuciscus idus</i> )			
LC50	440	to	760	mg/l
Duration of exposure	96		h	

#### Daphnia toxicity

Species	Daphnia			
EC50	120			mg/l
Duration of exposure	72		h	

#### Bacteria toxicity

Species	Pseudomonas putida			
EC50	> 10000			mg/l
Duration of exposure	16		h	

### 12.2. Persistence and degradability

#### Biodegradability

valuation Readily biodegradable

### 12.3. Bioaccumulative potential

#### Octanol/water partition coefficient (log Pow)

log Pow -1.72

## 13. Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations for the product



Trade name: Acid citricum anhydr fine 51N

Substance number: 060145

Version: 1 / CH

Date revised: 08.10.12

Replaces Version: - / CH

Date of printing: 08.10.12

Disposal in compliance with local and national regulations.

**Disposal recommendations for packaging**

Dispose of as unused product.

**14. Transport information**

**Land transport ADR/RID**

Non-dangerous goods

**Marine transport IMDG/GGVSee**

The product does not constitute a hazardous substance in sea transport.

**Air transport ICAO/IATA**

The product does not constitute a hazardous substance in air transport.

**15. Regulatory information**

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**16. Other information**

**Hazard statements listed in chapter 3**

H319

Causes serious eye irritation.

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.