

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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## Actoton® C

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

#### 1.1. Product identifier

Trade name/designation:

Actoton® C

Article No.:

04.1301.a

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

Use of the substance/mixture:

Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents  
Instrument Care

Relevant identified uses:

**Sector of uses [SU]**

**SU 20:** Health services

**Product Categories [PC]**

**PC 20:** Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

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

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**ACTO GmbH**

Quality Management

Büchnerstr. 11

38118 Braunschweig

Germany

**Telephone:** (+49) (0) 531-239 508-0

**Telefax:** (+49) (0) 531-239 508-11

**E-mail:** info@actogmbh.com

**Website:** <http://www.actogmbh.com>

**E-mail (competent person):** info@actogmbh.com

Poison Control Center-Nord (GIZ-Nord) University Medical Center Göttingen Robert-Koch-Str. 40, 37075

Göttingen Emergency number for Citizens: +49 (0) 551-19 24 0 Consulting physician: +49 (0) 551-38 31

80 E-mail: [giznord@giz-nord.de](mailto:giznord@giz-nord.de) Web-Page: <http://www.giz-nord.de>

#### 1.4. Emergency telephone number

Name: Erdi Günher Profession: Chemist Certificate No.: GBF-A-0-2859 Validity: 06.08.2021 Telephone: +90 5358654635 E-mail (competent person): [erdi.gunher@actopharma.com](mailto:erdi.gunher@actopharma.com), 24h: GIZ-Nord: +49-551-19 24 0, Safety Officer: +49-531-2395080; +49-172-8560648 (Only available during office hours.)

### SECTION 2: Hazards identification

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

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (Skin Corr. 1A)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (Eye Dam. 1)	H318: Causes serious eye damage.	

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### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



**GHS05**  
Corrosion

Signal word: Danger

#### hazard statements for health hazards

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Supplemental Hazard information (EU): -

#### Precautionary statements

P102	Keep out of reach of children.
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#### Precautionary statements Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

#### Precautionary statements Response

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313	Get medical advice/attention.

### 2.3. Other hazards

Adverse environmental effects:

The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Additional information:

Within the current knowledge of the supplier, this mixture does not contain any further substances classified as health or environmental hazards in the concentrations applicable within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008 and are hence require reporting in this section.

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### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 5949-29-1	<b>CITRONENSÄUREMONOHYDRAT</b> The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. <b>Warning</b> H319	≤ 20 Wt %
CAS No.: 67-63-0 EC No.: 200-661-7 REACH No.: 01-2119457558-25-0000	<b>propan-2-ol</b> Eye Irrit. 2, Flam. Liq. 2, STOT SE 3 <b>Danger</b> H225-H319-H336	≤ 10 Wt %

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Remove casualty to fresh air and keep warm and at rest. If unconscious place in recovery position and seek medical advice. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### In case of skin contact:

Following skin contact Subsequently wash off with: Water and soap In case of skin irritation, consult a physician.

IF ON CLOTHING: Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use.

#### After eye contact:

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

#### After ingestion:

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

#### Self-protection of the first aider:

Warning First aider: Pay attention to self-protection! Use personal protection equipment.

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

Skin corrosion/irritation Serious eye damage/eye irritation

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

You can refer to data sources in section 16 to find detailed toxicity information of each component.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO<sub>2</sub>), Extinguishing powder, Water spray, alcohol resistant foam . Suppress gases/vapours/mists with water spray jet.

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

In case of fire: Gases/vapours, toxic

#### Hazardous combustion products:

Carbon monoxide Carbon dioxide (CO<sub>2</sub>)

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### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Heating causes rise in pressure with risk of bursting. Move undamaged containers from immediate hazard area if it can be done safely. Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

**Personal precautions:**

Avoid contact with eyes and skin. Wear personal protection equipment. Do not breathe gas/vapour/aerosol. Provide adequate ventilation. Keep out of reach of children. Wash hands before breaks and after work. Wash contaminated clothing prior to re-use.

**Protective equipment:**

Wear suitable protective clothing and eye/face protection.

**Emergency procedures:**

Remove persons to safety. Provide eye shower and label its location conspicuously

#### 6.1.2. For emergency responders

**Personal protection equipment:**

Wear suitable protective clothing, gloves and eye/face protection. Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

**For containment:**

Avoid release of large amounts to the environment. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up:**

Treat the recovered material as prescribed in the section on waste disposal. Subsequently wash off with: Water (with cleaning agent)

**Other information:**

Dispose of waste according to applicable legislation.

### 6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

### 6.5. Additional information

See protective measures under point 7 and 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Handle in accordance with good industrial hygiene and safety practice.

**Fire prevent measures:**

No special measures are necessary.

**Environmental precautions:**

See section 8.

**Advices on general occupational hygiene**

When using do not eat, drink or smoke. Avoid contact with eyes and skin. Wash hands before breaks and after work. Avoid contact with eyes and skin.

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

**Technical measures and storage conditions:**

Keep container tightly closed in a cool, well-ventilated place. storage temperature: 5-40 °C

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### Requirements for storage rooms and vessels:

Keep/Store only in original container. Floors should be impervious, resistant to liquids and easy to clean. Material, acid-resistant

### Hints on storage assembly:

Do not store together with: Highly oxidising substances. Keep away from food, drink and animal feedingstuffs.

**Storage class:** 8B – Non-combustible corrosive substances

### Further information on storage conditions:

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

### 7.3. Specific end use(s)

#### Recommendation:

Some of the uses of the product mentioned in Section 1.2. No other specific uses are stipulated.

#### Industrial sector specific solutions:

Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	propan-2-ol CAS No.: 67-63-0	① 200 ppm (500 mg/m <sup>3</sup> ) ② 400 ppm (1,000 mg/m <sup>3</sup> )

#### 8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
TRGS 903 (DE)	propan-2-ol CAS No.: 67-63-0	25 mg/L	① Aceton ② Blut ③ Expositionsende bzw. Schichtende
TRGS 903 (DE)	propan-2-ol CAS No.: 67-63-0	25 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende

#### 8.1.3. DNEL-/PNEC-values

No data available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

#### 8.2.2. Personal protection equipment



#### Eye/face protection:

Avoid contact with eyes. Suitable eye protection: Eye glasses Berufsgenossenschaftliche Regeln (BGR) 192

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### Skin protection:

Wash hands before breaks and after work. Thorough skin-cleansing after handling the product. Apply skin care products after work. Hand protection: EN ISO 374 Tested protective gloves must be worn.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

### Respiratory protection:

Use only in well-ventilated areas. With correct and proper use, and under normal conditions, breathing protection is not required.

### Other protection measures:

General health and safety measures: When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Wash contaminated clothing prior to re-use.

### 8.2.3. Environmental exposure controls

See chapter 7. No additional measures necessary.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: Liquid

Colour: colourless

Odour: characteristic

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	≥ 1 - ≤ 3	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>not determined</i>			
Decomposition temperature	<i>not determined</i>			
Flash point	<i>not determined</i>			
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	≥ 1 - ≤ 1.15 g/ml	20 °C		
Bulk density	<i>not determined</i>			
Water solubility	completely miscible			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>	40 °C		

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with : Alkali (lye), Oxidising agent

The product develops hydrogen in an aqueous solution in contact with metals.

### 10.2. Chemical stability

There is no stability problems observed when use as prescribed and with proper storage.

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### 10.3. Possibility of hazardous reactions

Oxidising agent, strong, Alkali (lye)

### 10.4. Conditions to avoid

See chapter 7. No additional measures necessary.

### 10.5. Incompatible materials

Alkali (lye) Oxidising agent

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. In case of fire: Gases/vapours, toxic Do not breathe gas/vapour.

### Further information

There is no dangerous reactions known when use as prescribed and with proper storage.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
5949-29-1	CITRONENSÄUREMONOHYDRAT	<b>LD<sub>50</sub> oral:</b> 3,000 mg/kg (Ratte) <b>LD<sub>50</sub> dermal:</b> 2,000 mg/kg (Ratte)
67-63-0	propan-2-ol	<b>LD<sub>50</sub> oral:</b> ≥5,050 mg/kg (Ratte) OECD <b>LD<sub>50</sub> dermal:</b> ≥12,800 mg/kg (Kaninchen) OECD <b>LC<sub>50</sub> Acute inhalation toxicity (gas):</b> ≥4 mg/l (Ratte)

#### Skin corrosion/irritation:

Irritating to skin.

#### Serious eye damage/irritation:

Serious eye damage/eye irritation

#### Additional information:

Toxicological data are not available. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC). The toxicology data of the ingredients listed were supplied by manufacturers of raw materials.

## SECTION 12: Ecological information

### 12.1. Toxicity

CAS No.	Substance name	Toxicological information
5949-29-1	CITRONENSÄUREMONOHYDRAT	<b>LC<sub>50</sub>:</b> 160 mg/l 2 d (Daphnien)
67-63-0	propan-2-ol	<b>LC<sub>50</sub>:</b> ≥9,640 mg/l 4 d (Fische) OECD 202 (Daphnien, Immobilisierung) <b>EC<sub>50</sub>:</b> ≥1,400 mg/l 2 d (Daphnien) <b>EC<sub>50</sub>:</b> ≥1,000 mg/l 4 d (Algen)

### 12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
5949-29-1	CITRONENSÄUREMONOHYDRAT	Yes, rapidly	Bioaccumulative potential: Readily biodegradable (according to OECD criteria).
67-63-0	propan-2-ol	Yes, rapidly	

### 12.3. Bioaccumulative potential

No data available

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### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
5949-29-1	CITRONENSÄUREMONOHYDRAT	—
67-63-0	propan-2-ol	—

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

##### Waste code product:

07 06 99 Wastes not otherwise specified

##### Waste code packaging:

15 01 10 \* packaging containing residues of or contaminated by dangerous substances

\*: Evidence for disposal must be provided.

### Waste treatment options





#### Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

#### Appropriate disposal / Package:

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

## SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1. UN-No.</b>			
UN 3265	UN 3265	UN 3265	UN 3265
<b>14.2. UN proper shipping name</b>			
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
<b>14.3. Transport hazard class(es)</b>			
 8	 8	 8	 8
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
No	No	No	No



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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.6. Special precautions for user</b>			
<b>Special provisions:</b> 274 <b>Limited quantity (LQ):</b> 5L-E1 <b>Excepted Quantities:</b> <b>Hazard identification number (Kemler No.):</b> 80 <b>Classification code:</b> C3 <b>tunnel restriction code:</b> (E) <b>Remark:</b> P001, IBC03, LP01, R001	<b>Special provisions:</b> 274 <b>Limited quantity (LQ):</b> 5L-E1 <b>Excepted Quantities:</b> <b>Classification code:</b> C3 <b>Remark:</b>	<b>Special provisions:</b> 223, 274 <b>Limited quantity (LQ):</b> 5L-E1 <b>Excepted Quantities:</b> <b>EmS-No.:</b> F-A; S-B <b>Remark:</b> P001, LP01, IBC03	<b>Special provisions:</b> <b>Limited quantity (LQ):</b> IATA-Packing instructions - Passenger: Y841 IATA-Maximum amount - Passenger: 1L IATA-Packing instructions - Passenger 852 IATA-Maximum amount - Passenger: 5L IATA-Packing instructions - Cargo: 856 IATA-Maximum amount - Cargo: 60L <b>Excepted Quantities:</b> <b>Remark:</b> ERG Code: 8L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

## SECTION 15: Regulatory information

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

#### 15.1.1. EU legislation

##### Authorisations:

Class I Medical product according to Medical Devices Directive 93/42/EEC with amendment 2007/47/EC.

##### Other regulations (EU):

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Classification according to Regulation (EC) No 1272/2008 [CLP], according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 453/2010). Classification according to Directive 67/548/EEC or 1999/45/EC. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### 15.1.2. National regulations

##### [DE] National regulations

##### Restrictions of occupation

5 MuSchRiV. 22 JArbSchG. 4 MuSchRiV.

##### Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

##### Technische Anleitung Luft (TA-Luft)

##### Remark:

Total dust emission value may not be exceeded. (see No. 5.2.1).

##### Water hazard class (WGK)

##### WGK:

1 - Mildly water-hazardous

##### Source:

VwVwS Anh. 2, Nr. (2005) Stoff Nr.: 57

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### Other regulations, restrictions and prohibition regulations

TRGS 401 "Risks resulting from skin contact - identification, assessment, measures"

TRGS 510 "Storage of hazardous substances in non-stationary containers"

BGI 595 "Instructions M 004: Irritating substances / corrosive substances"

### 15.2. Chemical Safety Assessment

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

No data available

### 16.2. Abbreviations and acronyms

No data available

### 16.3. Key literature references and sources for data

You can refer to data sources below to find detailed toxicity information of each component.

<http://www.baua.de/>

<http://gestis.itrust.de/>

<http://www.gefahrstoff-info.de/>

<http://esis.jrc.ec.europa.eu/>

<http://www.echemportal.org/>

<http://www.gischem.de>

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (Skin Corr. 1A)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (Eye Dam. 1)	H318: Causes serious eye damage.	

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

### 16.6. Training advice

Do not handle until all safety precautions have been read and understood.

### 16.7. Additional information

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