

# Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006

**Crotodur® 31-0-0**



Version: 2.6  
Date of last issue: 06.04.2023  
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Revision Date:  
04.08.2023

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

### 1.1 Product identifier

Trade name : Crotodur® 31-0-0  
Registration number : 01-2119983389-17-0000

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

Use of the Substance/Mixture : Fertilizer

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

Company : COMPO EXPERT GmbH  
Krögerweg 10  
D-48155 Münster  
Telephone : +49 (0) 251 29 79 81 – 000  
Telefax : +49 (0) 251 29 79 81 - 111  
E-mail address of person responsible for the SDS : info@compo-expert.com

### 1.4 Emergency telephone number

GBK GmbH - Global Regulatory Compliance - 24h  
Telephone: +49 (0) 6132 - 84463

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Supplemental Hazard Statements : EUH210 Safety data sheet available on request.

Further information : Directive 76/116/EEC on the approximation of the laws of the Member States relating to fertilisers.  
The authority permits and storage regulations must be

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observed.

## 2.3 Other hazards

May form explosible dust-air mixture if dispersed.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Fertilizer

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
6-methyl-2-oxoperhydropyrimidin-4-ylurea	1129-42-6  214-447-6  01-2119983389-17-0000		<= 100

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled : If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.  
On inhalation of decomposition products:  
In case of lung irritation, first treatment with dexametason aerosol (spray).  
Keep patient calm, remove to fresh air, seek medical attention.
- In case of skin contact : Wash thoroughly with soap and water.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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

Symptoms : No information available.

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

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water

Unsuitable extinguishing media : Foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Sand  
High volume water jet  
Avoid dust formation.

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

Specific hazards during firefighting : Can decompose at above 100 °C. Thermal decomposition products:  
carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen monoxide, nitrogen dioxide, dinitrogenoxide, ammonia

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

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

Personal precautions : Avoid dust formation.  
Keep away from sources of ignition - No smoking.  
Ventilate the area.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Retain and dispose of contaminated wash water.

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

Methods for cleaning up : Use mechanical handling equipment.

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#### 6.4 Reference to other sections

Information regarding safe handling see in section 7, For disposal considerations see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

- |   |   |  |
|---|---|--|
| Advice on protection against fire and explosion | : | Finely dispersed particles form explosive mixtures with air. Avoid formation of aerosol. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from combustible materials. Take measures to prevent the build up of electrostatic charge. Use only explosion-proof equipment. |
| Hygiene measures                                | : | At the end of the shift the skin should be cleaned and skin-care agents applied.   |
| Dust explosion class                            | : | Kst-value >0 up to 200 bar m s <sup>-1</sup>   |

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

- |   |   |   |
|---|---|---|
| Requirements for storage areas and containers | : | When stored loose do not mix with other fertilizers. Store well away from other substances. Keep away from direct sunlight. Protect against heat. Protect from contamination. Protect against humidity (product is hygroscopic and tends to cake or disintegrate) |
| Storage class (TRGS 510)                      | : | 13, Non Combustible Solids  |

#### 7.3 Specific end use(s)

- |                 |   |   |
|-----------------|---|---|
| Specific use(s) | : | Always read the label and product information before use. |
|-----------------|---|---|

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

none

#### 8.2 Exposure controls

##### Personal protective equipment

- |                        |   |   |
|------------------------|---|---|
| Respiratory protection | : | respiratory protection only if aerosol or dust is formed. |
|------------------------|---|---|

##### Environmental exposure controls

- |                |   |   |
|----------------|---|---|
| General advice | : | Do not flush into surface water or sanitary sewer system. |
|----------------|---|---|

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Retain and dispose of contaminated wash water.

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### SECTION 9: Physical and chemical properties

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

Physical state	: granular
Colour	: various yellowish
Odour	: very faint
pH	: ca. 6 - 8, Concentration: 100 g/l (20 °C)
Melting point/range	: 174 °C Method: OECD Test Guideline 102
Boiling point/boiling range	: 219 °C Method: OECD Test Guideline 103
Flash point	: Not relevant
Vapour pressure	: <= 0,35 Pa (20 °C) Method: OECD Test Guideline 104
Relative density	: 1,41 (20 °C) Method: Density of liquids and solids.
Density	: 1,45 g/cm <sup>3</sup>
Bulk density	: ca. 950 kg/m <sup>3</sup>
Solubility(ies) Water solubility	: 5,07 g/l soluble (20 °C) pH: 8,57 - 8,69 Method: OECD Test Guideline 105
Solubility in other solvents	: 0,23 g/l (20 °C) Solvent: octan-1-ol Method: OECD Test Guideline 105

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Partition coefficient: n-octanol/water	: Pow: 0,045 (20 °C) log Pow: -1,34 (20 °C) Method: OECD Test Guideline 107
Decomposition temperature	: ca. 100 °C To avoid thermal decomposition, do not overheat.
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: May form explosible dust-air mixture if dispersed. Minimum ignition energy $W_{min} 152 \text{ mJ} < W_{min} < 260 \text{ mJ}$ (@ humidity 0.9 %; @ median particle size distribution 22 $\mu\text{m}$ )
Oxidizing properties	: Not considered an oxidizing substance

### 9.2 Other information

Dust explosion class	: Kst-value >0 up to 200 bar m s <sup>-1</sup>
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

No decomposition if stored normally.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	: Evolution of ammonia under influence of alkalies. May form explosible dust-air mixture if dispersed.
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### 10.4 Conditions to avoid

Conditions to avoid	: Exposure to air or moisture over prolonged periods. May form explosible dust-air mixture if dispersed. Avoid dust formation.
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### 10.5 Incompatible materials

Materials to avoid	: Strong oxidizing agents
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### 10.6 Hazardous decomposition products

Hazardous decomposition products	: Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide
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## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

**Product:**

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg  
Method: OECD Guideline 423

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

#### Skin corrosion/irritation

**Product:**

Species: EPISKIN Human Skin Model Test

Exposure time: 0,05 - 1 h

Method: OECD Guideline for the Testing of Chemicals. No. 431: In Vitro Skin Corrosion: Human Skin Model Test

Result: non-irritant

#### Serious eye damage/eye irritation

**Product:**

Species: other

Method: OECD Guideline for Testing of Chemicals, Nr. 437 "Bovine Corneal Opacity and Permeability Test Method for Identifying Ocular Corrosives and Severe Irritants"

Result: non-irritant

#### Respiratory or skin sensitisation

**Product:**

Test Type: Mouse Local Lymph Node Assay (LLNA)

Species: Mouse

Method: OECD Guideline 429

Result: Does not cause skin sensitisation.

#### germ cell mutagenicity

**Product:**

Genotoxicity in vitro : Test Type: Mouse lymphoma assay  
Method: Genetic Toxicology: In vitro Mammalian Cell Gene

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### Mutation Tests

Result: Mutagenicity tests revealed no genotoxic potential.

: Test Type: Salmonella typhimurium reverse mutation assay  
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Result: Mutagenicity tests revealed no genotoxic potential.

### Genotoxicity in vivo

: Species: Mouse (male)  
Exposure time: 24 h  
Method: Genetic Toxicology: Micronucleus Test.  
Remarks:

### Carcinogenicity

#### Product:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

### Reproductive toxicity

#### Product:

Effects on fertility : Species: Rat  
Sex: male and female  
Application Route: Oral  
NOAEL: > 1.000 mg/kg,  
Method: OECD Guideline 422  
Remarks: Information given is based on data obtained from similar substances.

### Repeated dose toxicity

#### Product:

Species: Rat, male and female  
NOAEL:  $\geq$  1.200 mg/kg  
Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

### Aspiration hazard

Based on available data, the classification criteria are not met.

## 11.2 Information on other hazards



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## Endocrine disrupting properties

No data available

## Further information

### Product:

Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Scenedesmus subspicatus): > 500 mg/l  
Exposure time: 96 h  
Method: DIN 38412  
Remarks: The product was not tested. The statement was derived from products of similar structure and composition.

Toxicity to bacteria : EC50 : ca. > 100 mg/l  
Exposure time: 4 h  
Test Type: activated sludge  
Method: Method for assessing the inhibition of nitrification of activated sludge microorganisms by chemicals and waste waters.  
Remarks: Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

### 12.2 Persistence and degradability

#### Product:

Biodegradability : Result: Biodegradable.  
Biodegradation: 85,6 %  
Exposure time: 28 d  
Method: Production of CO<sub>2</sub>  
GLP: yes  
Remarks: The 10 day time window criterion is not fulfilled.

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### 12.3 Bioaccumulative potential

**Product:**

Bioaccumulation : Remarks: Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

### 12.4 Mobility in soil

**Product:**

Mobility : Remarks: Over time, the substance will preferentially distribute into the compartment water.

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : Remarks: Not applicable

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

**Product:**

Additional ecological information : There is a high probability that the product is acute not harmful to aquatic organisms.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

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## 14.3 Transport hazard class(es)

Not regulated as a dangerous good

## 14.4 Packing group

Segregation group : : (-)

Not regulated as a dangerous good

## 14.5 Environmental hazards

Not regulated as a dangerous good

## 14.6 Special precautions for user

Not applicable

## 14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not relevant

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## SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

Water contaminating class : WGK 1 slightly water endangering  
(Germany)

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

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## SECTION 16: Other information

### Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on

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Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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