

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

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

#### 1.1 Product identifier

Trade name : Crenipure®  
Registration number : if available listed in Chapter. 3  
Unique Formula Identifier (UFI) : XUF0-W035-U00F-G0M6

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

Use of the Sub-stance/Mixture : Raw material for industrial use

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

Company : AlzChem Trostberg GmbH  
Dr.-Albert-Frank-Str. 32  
83308 Trostberg, Germany  
Telephone : +49 8621 86-3351  
E-mail address of person responsible for the SDS : alz-pst@alzchem.com

#### 1.4 Emergency telephone number

Emergency telephone number : +49 8621 86-2776  
AlzChem Trostberg GmbH, Fire Brigade

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**  
Not a hazardous substance or mixture.

#### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**  
No labelling required

#### 2.3 Other hazards

Not a PBT, vPvB substance as per the criteria of the REACH Ordinance

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

Chemical name	CAS-No. EC-No. Index-No.	Classification	Concentration (% w/w)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

	Registration number		
Creatinine	60-27-5 200-466-7 01-2120098642-48-0000	not classified	>= 98
Creatine, anhydrous	57-00-1 200-306-6 01-2119931462-43-0000	not classified	< 1

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Seek medical advice in case of symptoms caused by eye or skin contact, inhalation or swallowing.
- If inhaled : Move to fresh air.
- In case of skin contact : No particular measures required.
- In case of eye contact : Open the eyes and rinse thoroughly with plenty of water.
- If swallowed : No hazards which require special first aid measures.

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

None known.

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

- Treatment : No hazards which require special first aid measures.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Water spray, foam, CO<sub>2</sub>, dry powder.
- Unsuitable extinguishing media : high volume water jet

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

- Hazardous combustion products : nitrous gases  
Carbon oxides  
Ammonia

### 5.3 Advice for firefighters

- Special protective equipment for firefighters : In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

---

### SECTION 6: Accidental release measures

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

Personal precautions : Wear personal protective equipment; see section 8.  
Ensure adequate ventilation.  
Avoid dust formation.

#### 6.2 Environmental precautions

Environmental precautions : Product or extinguishing water with product must not be allowed to enter soil, sewers or natural bodies of water.

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

Methods for cleaning up : Use mechanical handling equipment.  
Avoid dust formation.  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal considerations see section 13.

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.  
Provide sufficient ventilation and exhaust at the workplace.  
Avoid dust formation.

Advice on protection against fire and explosion : No special precautions required.

Hygiene measures : Do not breathe dust. Avoid contact with skin, eyes and clothing. Take off clothing and shoes contaminated with product. Clean before reuse. Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work. Keep away from food, drink and animal feedingstuffs.

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

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage : Do not store together with strong bases, strong acids and oxidizing agents.

Storage class (TRGS 510) : 11, Combustible Solids

Packaging material : Suitable material: polyethylene, Polypropylene

#### 7.3 Specific end use(s)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

Specific use(s) : We are unaware of any specific end uses which go beyond the data reported in Section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

None known

### 8.2 Exposure controls

#### Engineering measures

Provide appropriate exhaust ventilation at machinery.

#### Personal protective equipment

Eye protection : protective goggles in case of dusts being formed

Hand protection

Remarks : not required

Skin and body protection : Long sleeved clothing

Respiratory protection : not required under normal use  
In case product dust is released:  
Dust protection mask in accordance with EN 149 FFP2

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : crystalline powder

Colour : white

Odour : odourless

pH : 7,5 - 8,5 (25 °C)  
Concentration: 5 %

Melting point/range : 295 °Cdecomposition

Flash point : Not applicable

Flammability (solid, gas) : BZ 2 - briefly ignites and rapidly extinguishes.

Vapour pressure : Not applicable

Relative density : 1,39 (20,3 °C)  
Method: OECD Test Guideline 109

Bulk density : 484 kg/m<sup>3</sup> (20 °C)

Solubility(ies)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

Water solubility	:	90 g/l (20 °C)
Partition coefficient: n-octanol/water	:	log Pow: -1,76 (literature value)
Auto-ignition temperature	:	> 360 °C Ignition temperature for deposited dust  > 600 °C for dust whirled up
Explosive properties	:	not applicable
Oxidizing properties	:	not applicable

### 9.2 Other information

Impact sensitivity	:	not applicable
Molecular weight	:	113,12 g/mol

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No hazardous reactions are known if properly handled and stored.

### 10.4 Conditions to avoid

Conditions to avoid : Avoid dust formation.  
Heat, flames and sparks.  
Avoid moisture.

### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.  
see section 5

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Components:

##### **Creatinine:**

Acute oral toxicity : LD50 (Mouse): > 9000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

##### **Creatine, anhydrous:**

Acute oral toxicity : LD50 (Rat): > 2000 mg/kg  
Method: OECD 423  
Assessment: Based on available data, the classification criteria are not met.  
Remarks: Own study, IUCLID

Acute inhalation toxicity : Remarks: no data available  
IUCLID

Acute dermal toxicity : Assessment: Based on available data, the classification criteria are not met.  
Remarks: IUCLID

#### Skin corrosion/irritation

##### Components:

##### **Creatinine:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : not irritating  
Remarks : IUCLID

##### **Creatine, anhydrous:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation  
Remarks : Own study, IUCLID

#### Serious eye damage/eye irritation

##### Components:

##### **Creatinine:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : not irritating  
Remarks : IUCLID

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

### Creatine, anhydrous:

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation  
Remarks : Own study, IUCLID

### Respiratory or skin sensitisation

#### Components:

##### Creatinine:

Test Type : Magnusson & Kligman  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : not sensitizing  
Remarks : IUCLID

##### Creatine, anhydrous:

Test Type : Magnusson & Kligman  
Species : guinea pig  
Method : OECD Test Guideline 406  
Result : not sensitizing  
Remarks : Own study, IUCLID

### Germ cell mutagenicity

#### Components:

##### Creatinine:

Genotoxicity in vitro : Test Type: Ames test  
Test system: S. typhimurium / E. coli  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: IUCLID

##### Creatine, anhydrous:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Method: OECD 471  
Result: negative  
Remarks: Own study, IUCLID

Test Type: In vitro mammalian cell gene mutation test  
Test system: Mouse lymphoma test  
Method: OECD 471  
Result: negative  
Remarks: Own study, IUCLID

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.  
Remarks: IUCLID

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

### Carcinogenicity

#### Components:

##### **Creatinine:**

Carcinogenicity - Assessment : no data available

##### **Creatine, anhydrous:**

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.  
Remarks: IUCLID

### Reproductive toxicity

#### Components:

##### **Creatinine:**

Reproductive toxicity - Assessment : no data available

##### **Creatine, anhydrous:**

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.  
Remarks: IUCLID

### STOT - single exposure

#### Components:

##### **Creatine, anhydrous:**

Assessment : Based on available data, the classification criteria are not met.  
Remarks : IUCLID

### STOT - repeated exposure

#### Components:

##### **Creatine, anhydrous:**

Assessment : Based on available data, the classification criteria are not met.  
Remarks : IUCLID

### Aspiration toxicity

#### Components:

##### **Creatine, anhydrous:**

No data available  
Remarks : IUCLID



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

### Experience with human exposure

#### Components:

##### **Creatine, anhydrous:**

General Information : Creatine is found in muscular tissue and is produced by the liver and kidneys. No health effects have been reported in humans.

#### **Further information**

##### Product:

Remarks : No toxic effects are to be expected when the product is handled appropriately.  
No additional toxicological data are available.

---

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **Creatinine:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1000 mg/l  
Exposure time: 48 h  
Remarks: IUCLID

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Method: OECD Test Guideline 201  
Remarks: IUCLID

##### **Creatine, anhydrous:**

Toxicity to fish : LC50 (Brachydanio rerio): > 84,6 mg/l  
Exposure time: 96 h  
Method: Directive 84/449/EEC, C.1  
Remarks: Own study, IUCLID

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): > 800 mg/l  
Exposure time: 48 h  
Method: Directive 92/69/EEC C.2  
Remarks: Own study, IUCLID

Toxicity to algae/aquatic plants : (Desmodesmus subspicatus): > 100 mg/l  
End point: growth rate  
Exposure time: 72 h  
Method: OECD 201  
Remarks: Own study, IUCLID

#### **Ecotoxicology Assessment**

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

### 12.2 Persistence and degradability

#### Components:

##### **Creatinine:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: readily biodegradable  
Method: OECD TG 302 B  
Remarks: IUCLID

##### **Creatine, anhydrous:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 96,6 %  
Exposure time: 28 d  
Method: OECD 301 E  
Remarks: IUCLID

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

#### Components:

##### **Creatinine:**

Partition coefficient: n-octanol/water : log Pow: -1,76

##### **Creatine, anhydrous:**

Partition coefficient: n-octanol/water : log Pow: < -2 (20 °C)

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : Not a PBT, vPvB substance as per the criteria of the REACH Ordinance.

### 12.6 Other adverse effects

#### Product:

Additional ecological infor- : No further ecotoxicological data are available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

mation

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : Must be brought to an adequate waste treatment facility, in conformity with applicable waste disposal regulations.
- Contaminated packaging : Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

## SECTION 14: Transport information

### 14.1 UN number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Remarks : Not classified as dangerous in the meaning of transport regulations.

**ADR** : Not regulated as a dangerous good

**RID** : Not regulated as a dangerous good

**IMDG** : Not regulated as a dangerous good

Remarks : Not classified as dangerous in the meaning of transport regulations.

**IATA (Cargo)** : Not regulated as a dangerous good

Remarks : Not classified as dangerous in the meaning of transport regulations.

**IATA (Passenger)** : Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU  
Revision Date: 06.10.2020

Specification: 181402  
Material no.:

Date of first issue: 24.06.2013  
Print Date: 07.10.2020

### SECTION 15: Regulatory information

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

#### 15.2 Chemical safety assessment

No exposure or risk assessment is required for this product since it is not classified for health or environmental risks.

### SECTION 16: Other information

#### Full text of other abbreviations

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### 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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## Crenipure®

Version 2.2 / REG\_EU

Revision Date: 06.10.2020

Specification: 181402

Material no.:

Date of first issue: 24.06.2013

Print Date: 07.10.2020

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.

REG\_EU / EN