

# D-Cycloserine

## Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 11/03/2011      Revision date: 21/09/2017  
Supersedes 09/08/2011

**C0119**

Version: 2.0

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

#### 1.1. Product identifier

Product form : Substance  
Trade name : D-Cycloserine  
Chemical name : (R)-4-amino-3-isoxazolidinone  
EC-No. : 200-688-4  
CAS-No. : 68-41-7  
Product code : C0119  
Formula : C<sub>3</sub>H<sub>6</sub>N<sub>2</sub>O<sub>2</sub>  
Product group : Raw material

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Duchefa Biochemie B.V.  
A. Hofmanweg 71  
2031 BH Haarlem - The Netherlands  
T +31(0)23-5319093 - F +31(0)23-5318027  
[info@duchefa.nl](mailto:info@duchefa.nl)

#### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
+31(0)23-5319093 (M-F 09:00-17:00)  
+31(0)6-30109355 (outside office hours)

Organisation/Company	Address	Comment
World Health Organization world directory of poison centres	<a href="http://apps.who.int/poisoncentres/">http://apps.who.int/poisoncentres/</a>	Consult website for a local poison centre

### SECTION 2: Hazards identification

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

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

Acute toxicity (inhal.), Category 4 H332  
Serious eye damage/eye irritation, Category 2 H319  
Hazardous to the aquatic environment — Chronic Hazard, Category 4 H413

Full text of hazard classes and H-statements : see section 16

## Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP)

:



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements (CLP)

: P261 - Avoid breathing dust, fume, gas, mist, spray, vapours

P273 - Avoid release to the environment

P280 - Wear eye protection, face protection, protective clothing, protective gloves

P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351 - IF IN EYES: Rinse cautiously with water for several minutes

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

## 2.3. Other hazards

Other hazards not contributing to the classification

: None under normal conditions.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Comments

: Assay: > 900 µg/mg

Name	Product identifier	%
D-Cycloserine	(CAS-No.) 68-41-7 (EC-No.) 200-688-4	100

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air. If not breathing, give artificial respiration.

First-aid measures after skin contact : Gently wash with plenty of soap and water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.

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

No additional information available

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water spray.

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

Hazardous decomposition products in case of fire : Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

### 5.3. Advice for firefighters

Precautionary measures fire : Wear proper protective equipment.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Avoid dust formation. Do not breathe dust.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent product from entering drains.

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

Methods for cleaning up : Sweep up, shovel or vacuum. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

No additional information available

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

Storage conditions : Store in original container. Store in dry, cool, well-ventilated area.

Storage temperature : 2 - 8 °C

### 7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

## 8.2. Exposure controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

### Hand protection:

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

### Eye protection:

Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Wear approved mask. filter type P2 (EN 143)

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Crystalline powder.
Molecular mass	: 102,09 g/mol
Colour	: White. light yellow.
Odour	: Odourless.
Odour threshold	: No data available
pH	: ≈ 5,5 - 6,5 10% solution
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 147 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Good. Ethanol: Good.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Inhalation: Harmful if inhaled.

Additional information	Drowsiness
<b>D-Cycloserine (68-41-7)</b>	
LD50 oral rat	> 5000 mg/kg
Additional information	Drowsiness

Skin corrosion/irritation	: Not classified pH: ≈ 5,5 - 6,5 10% solution
Serious eye damage/irritation	: Causes serious eye irritation. pH: ≈ 5,5 - 6,5 10% solution
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment. Prevent entry to sewers and public waters

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Dispose of materials or solid residues at an authorized site.

## SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

ADR	IMDG	IATA
<b>14.1. UN number</b>		
Not regulated	Not applicable	Not regulated
<b>14.2. UN proper shipping name</b>		
Not regulated	Not applicable	Not regulated
Not regulated	Not applicable	Not regulated
<b>14.3. Transport hazard class(es)</b>		
Not regulated	Not applicable	Not regulated
Not regulated	Not applicable	Not regulated
<b>14.4. Packing group</b>		
Not regulated	Not applicable	Not regulated
<b>14.5. Environmental hazards</b>		
Not regulated	Not applicable	Not regulated
No supplementary information available		

### 14.6. Special precautions for user

#### . Overland transport

Not regulated

#### - Transport by sea

Not applicable

#### - Air transport

Not regulated

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

D-Cycloserine is not on the REACH Candidate List

D-Cycloserine is not on the REACH Annex XIV List

### 15.1.2. National regulations

#### Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Indication of changes:

1.4	Emergency number	Modified	
2	Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]	Removed	Obsolete
8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves

Abbreviations and acronyms:

ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

# D-Cycloserine

## Safety Data Sheet

C0119

according to Regulation (EU) 2015/830

Data sources : Supplier. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H413	May cause long lasting harmful effects to aquatic life.

SDS Biochemicals version 2017

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*