# SAFETY DATA SHEET



Create Date: 2020-09-03

## SECTION 1: COMPANY AND PRODUCT INFORMATION

1.1	Product identifiers		
	Product name	: L-Proline	
	Cat. Number	: ZXB-06-101	
	CAS number	: 147-85-3	
	Synonyms	: (S)-Pyrrolidine-2-carboxylic acid	
1.2	Relevant identified uses of the substance or mixture and uses advised against		
	Identified uses	: For research and laboratory use only.	
1.3	Details of the supplier of the safety data sheet		
	Address	: Hinter den Gärten 56 89173 Lonsee Deutschland	
	Email	: info@zellx.de	
	Phone	: +49(0)731 55211521	
	Fax	: +49(0)731 55211719	
1.4	Emergency telephon	e number	
	Emergency phone	: +49(0)731 55211521	

#### SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

2.3	Label elements and precautionary statements			
	Pictogram	: None		
	Signal word	: None		
	Hazard statement(s)	: No applicable hazard statements.		
	Precautionary statement(s)	: No applicable precautionary statements.		
24	Hazarde not othorwis	a classified (HNOC) or not covered by GHS		

2.4 Hazards not otherwise classified (HNOC) or not covered by GHS No unclassified hazards known.

Substance/mixture is not classified as hazardous.

Not classified as hazardous under the GHS.

2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.5 NFPA Rating

	Health hazard	: 0	
	Fire hazard	: 0	
	Reactivity hazard	: 0	
2.6	HMIS Rating		
	Health hazard	: 0	
	Chronic health hazard	: -	
	Reactivity hazard	: 0	
	Flammability	: 0	
	Physical hazard	: 0	

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Substance	CAS#	EC#	Concentration
L-Proline M.F: C₅H <sub>9</sub> NO <sub>2</sub> M.W: 115.13 g/mol	147-85-3	205-702-2	Not Available

## 3.2 Hazardous components & classification

No chemicals or constituents are known to be present that require disclosure under applicable regulations.

## SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures

#### **General advice**

Consult a physician if symptoms are severe or persistent. Provide this data sheet to medical personnel. If product is spilled or leaked, evacuate area.

#### In case of inhalation

If inhaled, move person to fresh air and monitor breathing. If not breathing, give artificial ventilation. Consult a physician if symptoms are severe or persistent.

#### In case of skin contact

Immediately wash with excess soap and water. If spilled on clothing, remove all affected clothing. Consult a physician if symptoms are severe or persistent.

#### In case of eye contact

Flush eyes with water or eye wash solution as a precaution for 15 minutes. Consult a physician if symptoms are severe or persistent.

## In case of ingestion

Only induce vomiting if recommended by medical personnel. If subject is unconscious, do not give anything by mouth. If conscious, rinse mouth with water. Consult a physician if symptoms are severe or persistent.

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

All known important symptoms are described in Section 2 and/or Section 11. No other important symptoms to report.

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

No special treatment indicated. Provide treatment in accordance with exhibited systems.

## SECTION 5: FIREFIGHTING MEASURES

## 5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, and carbon dioxide extinguishers are suitable.

## 5.2 Unsuitable extinguishing media

No known unsuitable extinguishing media.

### 5.3 Special hazards arising from the substance

No special hazards are known to exist regarding combustion of this product.

### 5.4 Advice for firefighters

Wear protective gear, such as self-contained breathing apparatus, if necessary

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Provide suitable ventilation. Use any necessary personal protective equipment. Avoid contact with skin and eyes, and avoid creation and inhalation of vapor or dust. Keep all unnecessary personnel away.

## For personal protection see section 8

### 6.2 Environmental precautions

No environmental precautions required.

## 6.3 Methods and material for containment and cleaning up

Use inert absorbent material to absorb any spilled or leaked product. Keep in suitable, closed containers for disposal.

## For proper disposal see section 13

## SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Provide suitable ventilation. Wear any necessary personal protective equipment. For precautions see section 2

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

Storage conditions : Store upright, closed container in arid, ventilated environment.

Incompatible materials : Strong oxidizing agents are incompatible with this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

This product is not known to contain any substances with occupational exposure limit values.

#### 8.2 Engineering controls

Follow good industrial hygiene and safety practices when handling product.

## 8.3 Personal protective equipment

Eye/face protection : Use only government-approved safety glasses with side-shields.

Skin protection	:	Use gloves when handling product. Inspect gloves before use to ensure suitability for use. Remove without exposing skin to the gloves outer surface. Discard used gloves according to all pertinent laws and/or current good practices (cGXP). Wash hands with soap and water.
Body protection	:	Wear appropriate clothing. Ensure clothing is in good condition, with no holes or tears. When selecting clothing, consider the concentration and amount of substance to be handled.
Respiratory protection	:	Use only approved respirators and components which comply with CDC and NIOSH (US) or CEN (EU) regulations. Required only when vapors or aerosols are created.
Control of environmental exposure	1 :	No environmental precautions required.
General hygiene considerations	:	Comply with general industrial hygiene practice guidelines.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties		
Appearance	: White	
Physical states	: Solid	
Odor	: Not available	
Odor threshold	: Not available	
Melting point	: 228°C	
Boiling point range	: Not available	
рН	: 6-7 at 115 g/l @ 25°C	
Density	: Not available	
Flash point	: Not available	
Evaporation rate	: Not available	
Flammability	: The product is not flammable Flammability (solids)	
Upper/lower flammability or explosive limits:	: Not available	
Vapor pressure	: Not available	
Vapor density	: Not available	
Relative density	: Not available	
Water solubility	: 115 g/l at 20°C - Completely Soluble	
Partition coefficient:n-octanol/water	: Not available	
Autoignition temperature	: Not Auto-Flammable	
Decomposition temperature	: Not available	
Kinematic viscosity	: Not available	
Explosive properties	: Not available	
	Appearance Physical states Odor Odor threshold Melting point Boiling point range pH Density Flash point Evaporation rate Flammability Upper/lower flammability or explosive limits: Vapor pressure Vapor pressure Vapor density Relative density Relative density Water solubility Partition coefficient:n-octanol/water Autoignition temperature Decomposition temperature	Appearance:WhitePhysical states:SolidOdor:Not availableOdor threshold:Not availableMelting point:228°CBoiling point range:Not availablepH:6-7 at 115 g/l @ 25°CDensity:Not availableFlash point:Not availableEvaporation rate:Not availableFlammability:Not availableFlammability:Not availableVapor pressure:Not availableVapor density:Not availableRelative density:Not availableWater solubility:Not availablePartition:Not availableCoefficient:n-octanol/water:Not availableAutoignition temperature:Not availableDecomposition temperature:Not availableDecomposition temperature:Not availableKinematic viscosity:Not availableNot available:Not availableDecomposition temperature:Not availableDecomposition temperature:

- v) Oxidizing properties : Not available
- w) Solubility in other solvents : Not available
- x) Surface tension : Not available

## SECTION 10: STABILITY AND REACTIVITY

## 10.1 Reactivity

No special reactivity is known.

#### 10.2 Chemical stability

Product is stable when stored and used as recommended.

## 10.3 Stability note(s)

No special or unusual instability known.

### 10.4 Polymerization

No known polymerization.

## 10.5 Possibility of hazardous reactions

No hazardous reactions are known.

**10.6 Incompatible materials** 

Strong oxidizing agents are incompatible with this product.

## 10.7 Hazardous decomposition products

Carbon oxides and nitrogen oxides (NOx) can form if fire occurs.

## SECTION 11: TOXICOLOGICAL INFORMATION

## 11.1 Acute toxicity

	LD50 Oral	:	Rat - > 5,110 mg/kg
	LD50 Dermal	:	No toxicity data available.
	LC50 Inhalation	:	No toxicity data available.
11.2	2 Skin corrosion/irritation		
	No skin/corrosion irr	ita	tion data available.
11.3	Serious eye damage/eye irritation		
	No eye damage/irrita	ati	on data available.
11.4	Respiratory or skin sensitization		
	No sensitization data	a a	available.
11.5	Germ cell mutagenici	ty	
	No mutagenicity dat	a	available.
11.6	Carcinogenicity		

IARC	: Product and components are not regulated by the IARC.
ACGIH	: Product and components are not regulated by the ACGIH.
NTP	: Product and components are not regulated by the NTP.

OSHA : Product and components are not regulated by OSHA.

11.7 Reproductive toxicity

No reproductive toxicity data available.

## 11.8 Specific target organ toxicity - single exposure

No specific organ toxicity data available.

### 11.9 Specific target organ toxicity - repeated exposure

No specific organ toxicity data available.

### 11.10 Aspiration hazard

No aspiration hazard data available.

### **11.11 Additional Information**

RTECS: TW3584000.

### SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Toxicity

No ecological toxicity data available.

12.2 Aquatic toxicity

Species: Water Flea (Daphnia magna). Exposure: 48 hours. Results: EC50 > 100 mg/l

- **12.3 Persistence and degradability** Readily biodegradable.
- 12.4 Bioaccumulative potential

No bioaccumulation data available.

12.5 Mobility in soil

No soil mobility data available.

#### 12.6 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment is not required/was not conducted.

## 12.7 Other adverse effect

No other adverse effect data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

## 13.1 Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult and adhere to local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

#### 13.2 Packaging

Packaging should be disposed of in the same manner as unused product.

#### 13.3 Recommendation

Disposal must be made according to official regulations.

## SECTION 14: TRANSPORTATION INFORMATION

## 14.1 DOT (US)

Not a dangerous good under DOT(US) regulations.

## 14.2 IMDG

Not a dangerous good under IMDG regulations.

#### 14.3 IATA

Not a dangerous good under IATA regulations.

#### SECTION 15: REGULATORY INFORMATION

#### 15.1 SARA

SARA 302: This product and components are not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This product does not contain any components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313. SARA 311/312: No SARA Hazard

#### 15.2 Clean water act (CWA)

No chemicals are present in this product that are subject to regulation under the Clean Water Act.

### 15.3 Right to know components

Massachusetts	: No chemicals are present which require disclosure under the Massachusetts Right to Know Act.
Pennsylvania	: L-Proline CAS No.: 147-85-3
New Jersey	: L-Proline CAS No.: 147-85-3
California proposition 65 components	: This product contains no chemicals which are known to the State of California to cause cancer, or birth defects or other reproductive harm.

## SECTION 16: OTHER INFORMATION

#### 16.1 Disclaimer

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#### 16.2 Preparation Information

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