

# OTTO CHEMIE PVT LTD

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-----ISO 9001: 2015-----

## MATERIAL SAFETY DATA SHEET

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

1.1 Product identifiers  
L-Arginine, 99%+  
Code A 2585

### SECTION 2: Hazards identification

2.1 Classification of the substance or mixture  
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.  
2.2 Label elements  
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.  
2.3 Other hazards  
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### SECTION 3: Composition/information on ingredients

3.1 Substances  
Synonyms : (S)-2-Amino-5-guanidinopentanoic acid  
Formula : C<sub>6</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>  
Molecular weight : 174,20 g/mol  
CAS-No. : 74-79-3  
EC-No. : 200-811-1  
No components need to be disclosed according to the applicable regulations.

### SECTION 4: First aid measures

4.1 Description of first-aid measures  
If inhaled  
After inhalation: fresh air.  
In case of skin contact  
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
In case of eye contact  
After eye contact: rinse out with plenty of water. Remove contact lenses.  
If swallowed  
After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.  
4.2 Most important symptoms and effects, both acute and delayed  
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11  
4.3 Indication of any immediate medical attention and special treatment needed  
No data available

### SECTION 5: Firefighting measures

5.1 Extinguishing media  
Suitable extinguishing media  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Unsuitable extinguishing media  
For this substance/mixture no limitations of extinguishing agents are given.  
5.2 Special hazards arising from the substance or mixture  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Not combustible.  
Ambient fire may liberate hazardous vapours.  
5.3 Advice for firefighters  
In the event of fire, wear self-contained breathing apparatus.  
5.4 Further information  
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire

extinguishing water from contaminating surface water or the ground water system.

#### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

#### **SECTION 7: Handling and storage**

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatri® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatri® L

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

#### **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

a) Appearance

Form: powder

Color: white

b) Odor

weak

c) Odor Threshold

No data available

d) pH

ca.11,4 at 100 g/l at 20 °C

e) Melting

point/freezing point

Melting point/range: 222 °C - dec.

f) Initial boiling point

and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	The product is not flammable. - Flammability (solids)
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	< 0,1 hPa at 25 °C
l) Vapor density	No data available
m) Relative density	No data available
n) Water solubility	182 g/l at 25 °C - completely soluble
o) Partition coefficient: n-octanol/water	log Pow: -4,20 at 20 °C - Bioaccumulation is not expected.
p) Autoignition temperature	does not ignite
q) Decomposition temperature	No data available
r) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available
9.2 Other safety information	
Dissociation constant 2,17 at 20 °C	

#### SECTION 11: Toxicological information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:  
 Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg  
 Inhalation LC50 Rat: > 50mg/L.  
 Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.  
 Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).  
 Special Remarks on Toxicity to Animals: Not available.  
 Special Remarks on Chronic Effects on Humans: Not available.  
 Special Remarks on other Toxic Effects on Humans: Not available.

#### SECTION 12: Ecological information

12.1 Toxicity  
 Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - 2.800 mg/l - 96 h (OECD Test Guideline 203)  
 Toxicity to bacteria  
 12.2 Persistence and degradability  
 Biodegradability aerobic - Exposure time 28 d  
 Result: 100 % - Readily biodegradable. (OECD Test Guideline 301C)  
 12.3 Bioaccumulative potential  
 No data available  
 12.4 Mobility in soil  
 No data available  
 12.5 Results of PBT and vPvB assessment  
 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.  
 12.6 Other adverse effects  
 No data available

#### SECTION 13: Disposal considerations

13.1 Waste treatment methods  
 Product  
 See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

#### SECTION 14: Transport information

14.1 UN number  
 ADR/RID: - IMDG: - IATA: -  
 14.2 UN proper shipping name  
 ADR/RID: Not dangerous goods  
 IMDG: Not dangerous goods  
 IATA: Not dangerous goods  
 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

#### **SECTION 15: Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No.

1907/2006.15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

