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

1.1 Product identifiers
   - **Product name**: $N_\alpha,N_\alpha$-Bis(carboxymethyl)-L-lysine hydrate
   - **Product Number**: 14580
   - **Brand**: Aldrich
   - **REACH No.**: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
   - **CAS-No.**: 941689-36-7

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - **Identified uses**: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
   - **Company**: Sigma-Aldrich Chemie BV
     Stationsplein 4
     3331 LL ZWIJNDRECHT
     NETHERLANDS
   - **Telephone**: +31 78-620-5411
   - **Fax**: +31 78-620-5421
   - **E-mail address**: eurtechserv@sial.com

1.4 Emergency telephone number
   - **Emergency Phone #**: 112

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 EC-directives 67/548/EEC or 1999/45/EC.

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)-N-(5-Amino-1-carboxypentyl)iminodiacetic acid
   - **Formula**: C$_{10}$H$_{18}$N$_2$O$_6$ · xH$_2$O
   - **Molecular weight**: 262.26 g/mol
   - **CAS-No.**: 941689-36-7
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**
     If breathed in, move person into fresh air. If not breathing, give artificial respiration.
   - **In case of skin contact**
     Wash off with soap and plenty of water.
   - **In case of eye contact**
     Flush eyes with water as a precaution.
   - **If swallowed**
     Never give anything by mouth to an unconscious person. Rinse mouth with water.

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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
   - Carbon oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters
   - Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures
   - Avoid dust formation. Avoid breathing vapours, mist or gas.
   - For personal protection see section 8.

6.2 Environmental precautions
   - No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up
   - Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
   - For disposal see section 13.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
   - Provide appropriate exhaust ventilation at places where dust is formed.
   - For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
   - Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
   - Storage class (TRGS 510): Non Combustible Solids

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

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls
General industrial hygiene practice.

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).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
Form: powder
Colour: white

b) Odour
No data available
c) Odour Threshold
   No data available

d) pH
   No data available

e) Melting point/freezing point
   70.0 - 80.0 °C

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)
   No data available

j) Upper/lower flammability or explosive limits
   No data available

k) Vapour pressure
   No data available

l) Vapour density
   No data available

m) Relative density
   No data available

n) Water solubility
   No data available

o) Partition coefficient: n-octanol/water
   log Pow: -0.36

p) Auto-ignition temperature
   No data available

q) Decomposition temperature
   No data available

r) Viscosity
   No data available

s) Explosive properties
   No data available

t) Oxidizing properties
   No data available

9.2 Other safety information
   No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
   No data available

10.2 Chemical stability
   Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
   No data available

10.4 Conditions to avoid
   No data available

10.5 Incompatible materials
   Strong oxidizing agents

10.6 Hazardous decomposition products
   Other decomposition products - No data available
   In the event of fire: see section 5
SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**
No data available

**Skin corrosion/irritation**
No data available

**Serious eye damage/eye irritation**
No data available

**Respiratory or skin sensitisation**
No data available

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**
No data available

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available

**Additional Information**
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 **Toxicity**
No data available

12.2 **Persistence and degradability**
No data available

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**
Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**
Dispose of as unused product.

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

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.