MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name: Cargluacid® N-carbamylglutamate

Guarantee level: $\geq 97 \%$ CAS-NO. : 1188-38-1

Identified uses: Laboratory chemicals, Manufacture of substances Company: Inner Mongolia Tianyi Sci. & Tech. Co., Ltd.

Address: The Livestock Products Processing Zone, Chahar Right Back

Banner, Ulanqab, Inner Mongolia, China

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation(EC) No 1272/2008[EU-GHS/CLP]

Acute toxicity ,oral (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 4)

Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Irritating to eyes, respiratory system and shin.

2.2 Label elements

Labeling according Regulation (EC) No1272/2008[CLP]



Pictogram

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305+P351+P338 IF IN EYES:Rinse cautiously with water for several

Remove contact lenses, if present and easy to do. Continue

rinsing.

Supplemental Hazard none

Statements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R36/37/38 Irritating to eyes, respiratory system and skin.

S-phrase(s)

S26 In case of contact with eyes, rinse immediately with plenty of

water and seek medical advice.

S36/37 Wear suitable protective clothing and gloves.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: $C_6H_{10}N_2O_5$ Molecular Weight: 190.15 g/mol CAS-No.: 1188-38-1

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed no data available

5. FIRE-FIGHTING MEASURES

Extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature:2-35°C **Specific end uses**

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eve/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

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

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.

Body Protection

Complete suit protecting against chemicals, 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).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form powder Colour white

Safety data

рН no data available Melting point no data available Boiling point no data available no data available Flash point Ignition temperature no data available Lower explosion limit no data available Upper explosion limit no data available Water solubility no data available Partition coefficient: n-octanol/water log Pow: -1,097 Autoignition temperature no data available Decomposition temperature no data available Viscosity no data available Explosive properties no data available Oxidizing properties no data available

Other safety information

no data available

10. STABILITY AND REACTIVITY

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions Conditions to avoid

no data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Intraperitoneal - mouse - > 1.000 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

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

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes serious eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: LZ9870000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

Special precautions for user

no data available

15. REGULATORY INFORMATION

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

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

no data available

Chemical Safety Assessment

no data available

16.Further information:

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