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

1.1 Product identifiers
Product name: Amino Guanidine Bicarbonate
CAS-No.: 2582-30-1

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
Company: Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi-10002
INDIA
Telephone: +91 11 49404040
Email: care@cdhfinechemical.com

1.4 Emergency telephone number
Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Skin sensitisation (Category 1), H317
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word Warning
Hazard statement(s)
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)
P273 Avoid release to the environment.
P280 Wear protective gloves.
Supplemental Hazard none

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
Formula: \( \text{CH}_6\text{N}_4 \cdot \text{H}_2\text{CO}_3 \)
Molecular weight: 136.11 g/mol
CAS-No.: 2582-30-1
EC-No.: 219-956-7

Hazardous ingredients according to Regulation (EC) No 1272/2008
Component | Classification | Concentration
--- | --- | ---
Aminoguanidinium hydrogen carbonate | Skin Sens. 1; Aquatic Chronic | <= 100 %
CAS-No. | 2582-30-1 | 2; H317, H411
EC-No. | 219-956-7 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of 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
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 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.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 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.
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

8.2 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

Eye/face protection
Face shield and safety glasses 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.

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
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEKP2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   - Form: powder
   - Colour: beige

b) Odour
   - odourless

c) Odour Threshold
   - No data available

d) pH
   - 8.9 at 5 g/l at 20 °C

e) Melting point/freezing point
   - Melting point/range: 170 - 172 °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)
   - 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
   - 1.56 g/cm³ at 20 °C

n) Water solubility
   - 3.3 g/l at 30 °C
   - 2.7 g/l at 20 °C

o) Partition coefficient: n-octanol/water
   - No data available

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

Heat Exposure to light. hygroscopic

10.5 Incompatible materials

Strong oxidizing agents, Nitric acid, Nitrites
10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
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
LD50 Oral - Rat - > 5,000 mg/kg(Aminoguanidinium hydrogen carbonate)
LD50 Intraperitoneal - Rat - 1,160 mg/kg(Aminoguanidinium hydrogen carbonate)

Skin corrosion/irritation
Skin - Rabbit(Aminoguanidinium hydrogen carbonate)
Result: No skin irritation

Serious eye damage/eye irritation
Eyes - Rabbit(Aminoguanidinium hydrogen carbonate)
Result: No eye irritation

Respiratory or skin sensitisation
- Rabbit(Aminoguanidinium hydrogen carbonate)
May cause allergic skin reaction.

Germ cell mutagenicity
No data available(Aminoguanidinium hydrogen carbonate)

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(Aminoguanidinium hydrogen carbonate)

Specific target organ toxicity - single exposure
No data available(Aminoguanidinium hydrogen carbonate)

Specific target organ toxicity - repeated exposure
Ingestion - Liver

Aspiration hazard
No data available(Aminoguanidinium hydrogen carbonate)

Additional Information
RTECS: FG1772000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Aminoguanidinium hydrogen carbonate)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish
LC50 - Danio rerio (zebra fish) - 1,585 mg/l - 96 h(Aminoguanidinium hydrogen carbonate)

LC50 - Danio rerio (zebra fish) - 1,000 mg/l - 96 h(Aminoguanidinium hydrogen carbonate)

Toxicity to daphnia and other aquatic invertebrates
Remarks: No data available(Aminoguanidinium hydrogen carbonate)

Toxicity to algae
IC50 - Desmodesmus subspicatus (green algae) - 10 mg/l - 72 h(Aminoguanidinium hydrogen carbonate)
12.2 Persistence and degradability
Biodegradability

Chemical oxygen demand - Exposure time 28 d(Aminoguanidinium hydrogen carbonate)
Result: 0 % - Not readily biodegradable.
(OECD Test Guideline 301)
aerobic Chemical oxygen demand - Exposure time 28 d(Aminoguanidinium hydrogen carbonate)
Result: 38 % - Not readily biodegradable.
(OECD Test Guideline 302)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available(Aminoguanidinium hydrogen carbonate)

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
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 3077  IMDG: 3077  IATA: 3077

14.2 UN proper shipping name
ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aminoguanidinium hydrogen carbonate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Aminoguanidinium hydrogen carbonate)
IATA: Environmentally hazardous substance, solid, n.o.s. (Aminoguanidinium hydrogen carbonate)

14.3 Transport hazard class(es)
ADR/RID: 9  IMDG: 9  IATA: 9

14.4 Packaging group
ADR/RID: III  IMDG: III  IATA: III

14.5 Environmental hazards
ADR/RID: yes  IMDG Marine pollutant: no  IATA: yes

14.6 Special precautions for user

Further information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.
SECTION 15: Regulatory information

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

Full text of H-Statements referred to under sections 2 and 3.

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Further information
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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.