

Safety data sheet

Ammonium chloride U non food grade

Revision date : 2006/07/06
Version: 1.3

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(30060568/MDS_GEN_US/EN)

1. Substance/preparation and company identification

Company
BASF CORPORATION
100 Campus Drive
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP

Molecular formula: NH₄Cl
Synonyms: AMMONIUM CHLORIDE

2. Composition/information on ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
12125-02-9	>= 99.0 %	ammonium chloride

3. Hazard identification

Emergency overview

WARNING: CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
HARMFUL IF SWALLOWED.
INGESTION MAY CAUSE GASTRIC DISTURBANCES.
Avoid contact with the skin, eyes and clothing.
Avoid inhalation of dusts.
Wear a NIOSH-certified (or equivalent) particulate respirator.
Wear NIOSH-certified chemical goggles.
Wear chemical resistant protective gloves.
Wear protective clothing.
Eye wash fountains and safety showers must be easily accessible.

Potential health effects

Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Harmful if swallowed.

Irritation:

Not irritating to the skin. Irritating to eyes.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

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Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air. If symptoms persist, seek medical advice.

If on skin:

Wash thoroughly with soap and water. If symptoms persist, seek medical advice.

If in eyes:

Flush with copious amounts of water for at least 15 minutes. Seek medical attention.

If swallowed:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

5. Fire-fighting measures

Self-ignition temperature:

not self-igniting

Suitable extinguishing media:

foam, water, dry extinguishing media

Hazards during fire-fighting:

No particular hazards known.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. In case of fire and/or explosion do not breathe fumes. Large quantities of extinguishing water containing dissolved product should be contained. Contaminated extinguishing water must be disposed of in accordance with official regulations.

NFPA Hazard codes:

Health : 2

Fire: 1

Reactivity: 0

Special:

6. Accidental release measures

Personal precautions:

Use personal protective clothing.

Environmental precautions:

Do not empty into drains.

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Do not discharge into drains/surface waters/groundwater. This product is regulated by CERCLA ('Superfund').

Cleanup:

Avoid raising dust.

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

7. Handling and storage

Handling

General advice:

Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice. Keep the formation and deposition of dust to a minimum.

Protection against fire and explosion:

See MSDS section 5 - Fire fighting measures.

Storage

General advice:

Protect against moisture.

Storage incompatibility:

General: Segregate from alkalies and alkalizing substances. Segregate from nitrites. Segregate from oxidants.

Specific: Sodium nitrate,

8. Exposure controls and personal protection

Advice on system design:

Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Chemical resistant protective gloves, Suitable materials, rubber, plastic

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

9. Physical and chemical properties

Form:	crystalline, powder
Odour:	almost odourless
Colour:	white
pH value:	approx. 4.7 (200 g/l, 25 °C) (DIN/ISO 976)

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Melting point:	520 °C	(3,450 kPa)
Sublimation point:	338 °C	
Density:	1.53 g/cm ³	(20 °C) (ISO 2811-3)
Bulk density:	600 - 900 kg/m ³	(DIN/ISO 697)
Solubility in water:	374 g/l	(20 °C)

10. Stability and reactivity

Conditions to avoid:

Avoid heat. Avoid moisture.

Substances to avoid:

nitrites, nitrates, oxidizing agent

Hazardous reactions:

Violent reaction under influence of oxidizing agents. Incompatible with bases. Reacts with nitrites.

Decomposition products:

Hazardous decomposition products: Hydrogen chloride, ammonia

Thermal decomposition:

To avoid thermal decomposition, do not overheat.

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information

Acute toxicity

Oral:

LD50/rat: 1,410 mg/kg

Skin irritation:

rabbit: non-irritant

Eye irritation :

rabbit: Irritant.

Sensitization:

Guinea pig maximization test/guinea pig: Non-sensitizing.

Chronic toxicity

Genetic toxicity:

In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests.

12. Ecological information

Environmental fate and transport

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Biodegradation:

Evaluation: Inorganic product which cannot be eliminated from water by biological purification processes.
Can be oxidized to nitrate, or be reduced to nitrogen, by microorganisms.

Bioaccumulation:

Accumulation in organisms is not to be expected.

Environmental toxicity

Acute and prolonged toxicity to fish:

other static
carp/LC50 (96 h): 209 mg/l

Acute toxicity to aquatic invertebrates:

other semistatic
Daphnia pulex/LC50 (24 h): 247 mg/l

Toxicity to microorganisms:

OECD Guideline 209 aquatic
activated sludge, domestic, non-adapted/EC20 (0.5 h): approx. 850 mg/l
The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations.

14. Transport information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

Further information

Specific national features of transport regulations must be observed. They are to be found in the shipping documents.

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15. Regulatory information

Federal Regulations

Registration status:
TSCA, US released / listed

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
5,000 LBS	12125-02-9	ammonium chloride

State regulations

State RTK

<u>CAS Number</u>	<u>Chemical name</u>	<u>State RTK</u>
12125-02-9	ammonium chloride	MA, NJ, PA

16. Other information

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 0

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

Local contact information

prod_reg@basf.com

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