Safety data sheet

ChemiPURE Ammonium Chloride, ≥ 99.5%

Product name ChemiPURE Ammonium Chloride, ≥ 99.5%	Catalog no. ACH05, ACH10
Synonyms Ammonium muriate; sal ammoniac	SDS revision -
CAS no. 12125-02-9	Format version / date 3 / 24 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE Ammonium Chloride, ≥ 99.5%
Product code	ACH05 (500 g), ACH10 (1 kg)
CAS number	12125-02-9
EC number	235-186-4
Recommended use	Laboratory chemical; preparation of buffers and media, analytical and biological research. Research use only.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. Ipekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Acute toxicity (oral), Category 4; eye irritation, Category 2 (Regulation (EC) No. 1272/2008, CLP).
Label elements	GHS07; signal word: Warning.
Symbols / pictograms	
Signal word	Warning
Hazard statements	H302 - Harmful if swallowed. H319 - Causes serious eye irritation.
Precautionary statements - Prevention	P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P280 - Wear eye protection/face protection.
Precautionary statements - Response	P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P330 - Rinse mouth. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water; remove contact lenses if easy. P337 + P313 - If eye irritation persists, get medical advice.
Other hazards	Hygroscopic material. Avoid breathing dust and contact with eyes.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE Ammonium Chloride, ≥ 99.5%
Synonyms	Ammonium chloride; sal ammoniac; ammonium muriate
Concentration	≥ 99.5% (purity)
Formula	NH4Cl
Molecular weight	53.49 g/mol
Mixture statement	Substance: ammonium chloride (CAS 12125-02-9; EC 235-186-4), assay ≥ 99.5%. Minor impurities are not individually specified.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Immediately rinse cautiously with plenty of water, including under eyelids, for at least 15 minutes. Obtain medical attention.
Skin contact	Wash thoroughly with water for at least 15 minutes. Remove contaminated clothing. Seek advice if irritation persists.
Inhalation	Move to fresh air. Seek medical attention if breathing difficulty or other symptoms develop.
Ingestion	Rinse mouth with water. Do not induce vomiting. Seek medical advice; harmful if swallowed.
Self-protection of first aider	Wear suitable gloves and eye protection; avoid dust exposure.
Most important symptoms / effects	Harmful if swallowed; causes serious eye irritation. Dust may irritate the respiratory tract.
Notes to physicians	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Water spray, foam, dry chemical or carbon dioxide suitable for the surrounding fire.
Unsuitable extinguishing media	No specific unsuitable extinguishing media identified.
Special hazards arising from the substance or mixture	Heating or fire may release irritating fumes, including ammonia and hydrogen chloride.
Explosion data	Not considered flammable or explosive under normal handling conditions. No further data available.
Advice for firefighters	Wear self-contained breathing apparatus and full protective clothing; avoid inhaling decomposition fumes.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation; avoid dust generation. Wear gloves, eye protection and protective clothing.
Environmental precautions	Prevent release to soil, drains and surface waters.
Methods and materials for containment and cleaning up	Carefully sweep up or collect mechanically without generating dust. Place in a closed, labelled waste container.
Reference to other sections	See Sections 8 and 13.

07 HANDLING AND STORAGE

Precautions for safe handling	Avoid breathing dust and contact with eyes, skin and clothing. Use good laboratory hygiene; wash hands after handling.
Conditions for safe storage	Store at 15–25 °C in a tightly closed container. Keep dry and in a well-ventilated place; protect from moisture.
Container labeling	Retain in original or appropriately labelled, tightly closed containers.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

For ammonium chloride fume, ACGIH/NIOSH reference limits: TWA 10 mg/m³; STEL 20 mg/m³. Assess dust exposure separately.

8.2 Exposure controls

Engineering measures	Provide adequate laboratory ventilation. Eyewash facilities should be readily accessible.
Hygiene measures	Do not eat, drink or smoke during use. Wash hands and exposed skin after handling.
Eye / face protection	Wear chemical splash goggles or safety glasses meeting EN 166 as appropriate.
Hand protection	Wear appropriate chemical-resistant protective gloves.
Skin and body protection	Wear a laboratory coat and closed footwear.
Respiratory protection	Use suitable particulate respiratory protection if dust levels cannot be controlled by ventilation.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White crystalline powder (solid)
Odor	Odorless
Odor threshold	No data available
pH	Approx. 5.0 (10% aqueous solution at 25 °C)
Melting point / freezing point	Approx. 340 °C (sublimes/decomposes)
Initial boiling point and boiling range	No data available
Flash point	Not applicable (inorganic solid)
Evaporation rate	Not applicable (solid)
Flammability (solid, gas)	Non-flammable under normal conditions
Upper / lower flammability or explosive limits	Not applicable / no data available
Vapor pressure	No product-specific data available
Vapor density	Not applicable (solid)
Relative density	Approx. 1.53 g/cm³ at 25 °C
Solubility(ies)	Water soluble; approx. 370 g/L at 20 °C
Partition coefficient: n-octanol / water	Not applicable to inorganic salt
Auto-ignition temperature	No data available
Decomposition temperature	Approx. 350 °C
Viscosity	Not applicable (solid)
Explosive properties	Not explosive under normal conditions
Oxidizing properties	Not oxidizing

10 STABILITY AND REACTIVITY

Reactivity	No hazardous reactivity expected under recommended conditions.
Chemical stability	Hygroscopic; stable when stored dry in tightly closed containers.
Possibility of hazardous reactions	No hazardous polymerization under normal conditions.
Conditions to avoid	Excess heat, moisture, incompatible chemicals and dust generation.
Incompatible materials	Strong oxidizing agents, strong acids and strong bases.
Hazardous decomposition products	Ammonia, hydrogen chloride and other irritating fumes may evolve under fire or strong heating.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Acute oral toxicity, Category 4. Oral LD50 (rat): approx. 1,650 mg/kg (substance data).
Skin corrosion / irritation	Not classified as a skin irritant; prolonged contact may cause irritation.
Serious eye damage / eye irritation	Eye irritation, Category 2 (H319).
Carcinogenicity	Not listed as carcinogenic by IARC, NTP or OSHA in available substance data.
Reproductive toxicity	Based on available data, classification criteria are not met.
STOT - SE	Based on available data, classification criteria are not met.
STOT - RE	Based on available data, classification criteria are not met.
Aspiration hazard	Not applicable to solid.

11.2 Potential health effects

Ingestion: Harmful if swallowed; gastrointestinal symptoms may occur.
Inhalation: Dust may irritate the respiratory tract.
Skin: Prolonged contact may cause irritation.
Eyes: Causes serious eye irritation.

11.3 Additional information

No additional product-specific toxicological test data available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity data: fish LC50 209 mg/L (Cyprinus carpio); water flea EC50 202 mg/L (24 h). Avoid release.
Persistence and degradability	Persistence is considered unlikely for the inorganic substance.
Bioaccumulative potential	No data available; significant bioaccumulation is not expected.
Mobility in soil	Likely mobile in water due to high water solubility.
Results of PBT and vPvB assessment	Not applicable to inorganic substances under REACH Annex XIII criteria.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of laboratory chemical waste according to local and national requirements; do not pour into drains.
Contaminated packaging	Dispose of contaminated containers in accordance with local regulations. Do not reuse.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	N/A	Not regulated	N/A	N/A	No
IMDG	N/A	Not regulated	N/A	N/A	No
IATA	N/A	Not regulated	N/A	N/A	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP). Ammonium chloride: CAS 12125-02-9; EC 235-186-4; Index 017-014-00-8.
Environmental hazards	Not classified as a transport environmental hazard; avoid uncontrolled release to water.
Chemical safety assessment	No product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail