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Safety Data Sheet
Ammonium chloride RWS food grade

1. Identification

Product identifier used on the label

Ammonium chloride RWS food grade

Recommended use of the chemical and restriction on use

Recommended use*: food additive(s)
Recommended use*: Raw material; auxiliary; inorganic salts; flavours
Unsuitable for use: Not intended for sale to or use by the general public.

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

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Emergency telephone number

24 Hour Emergency Response Information
SETIQ: 1800-00-214-(Rep. Mexicana) or 55-59-15-88 (CDMX)
Telephone: +1-800-849-5204 or +1-833-229-1000

Other means of identification

Molecular formula:	NH(4)CL
Chemical family:	No data available.
Synonyms:	Ammonium chloride
	Ammoniac, Salmiac, Ammonium Muriate, Amchlor

2. Hazards Identification

According to Regulation NOM-018-STPS-2015

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Eye Irrit.	2A	Eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Pictogram:

Signal Word:
Warning

Hazard Statement:

H319	Causes serious eye irritation.
H302	Harmful if swallowed.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear eye protection.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P337 + P313	If eye irritation persists: Get medical attention.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.
No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation NOM-018-STPS-2015

ammonium chloride
CAS Number: 12125-02-9
Content (W/W): > 80.0 - <= 100.0%
Synonym: Ammonium chloride

The actual concentration is withheld as a trade secret.

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
After inhalation of decomposition products: Keep patient calm, remove to fresh air, seek medical attention.

If on skin:
Wash thoroughly with soap and water

If in eyes:
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause:, vomiting, lethargy, confusion, hyperventilation, nausea, headache
Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment:	Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, water spray, dry powder

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
ammonia, hydrogen chloride,
The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

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.

Impact Sensitivity:
Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.

Environmental precautions
Do not empty into drains.

Methods and material for containment and cleaning up
For residues: Pick up in dry form. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
No special precautions necessary.

Conditions for safe storage, including any incompatibilities
Segregate from alkalies and alkalizing substances. Segregate from nitrites. Segregate from oxidants. Do not store with: Sodium nitrate

Suitable materials for containers: Polyester resin, glass reinforced (Palatal A410), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4571, rubberized, enamelled, Paper/Fibreboard

Further information on storage conditions: Protect against moisture.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Carbonyl iron powder	OEL, MX:	TWA value 1 mg/m3 (iron (Fe));
ammonium chloride	OEL, MX:	TWA value 10 mg/m3 ;
	OEL, MX:	STEL value 20 mg/m3 ;

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. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:
Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, chloroprene rubber (Neoprene), butyl rubber, nitrile rubber (Buna N), fluoroelastomer (Viton), polyvinylchloride (Pylox), Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of dusts. When using, do not eat, drink or smoke. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary.

9. Physical and Chemical Properties

Physical state:	solid	
Form:	crystalline, powder	
Odour:	almost odourless	
Odour threshold:	not applicable, odour not perceivable	
Colour:	white	
pH value:	5.0 - 5.5 (1.0 - 10.0 %(m), 25 °C)	
Melting point:	338 °C The substance / product decomposes. Literature data.	
Freezing point:	No data available.	
Boiling point:	(1,013.25 hPa) The substance / product decomposes therefore not determined.	
Sublimation point:	338 °C The substance / product decomposes.	
Flash point:	not applicable, the product is a solid	
Flammability:	not flammable	(Regulation 440/2008/EC, A.10)
Lower explosion limit:	For solids not relevant for classification and labelling.	

Upper explosion limit:	For solids not relevant for classification and labelling.	
Autoignition:	The substance / product decomposes therefore not determined.	
SADT:	Not a substance/mixture liable to self-decomposition according to GHS.	
Vapour pressure:	66 mbar (250 °C) Literature data.	
Density:	1.5274 g/cm3 (20 °C) Literature data.	
Bulk density:	600 - 900 kg/m3	(DIN ISO 697)
Partitioning coefficient n-octanol/water (log Pow):	The value has not been determined because the substance is inorganic.	
Self-ignition temperature:	not self-igniting not self-igniting	
Thermal decomposition:	To avoid thermal decomposition, do not overheat.	
Viscosity, dynamic:	not applicable, the product is a solid	
Viscosity, kinematic:	No applicable information available.	
Solubility in water:	296 - 298 g/l (20 °C)	
Solubility (quantitative):	No data available.	
Solubility (qualitative):	No data available.	
Molecular weight:	53.49 g/mol	
Evaporation rate:	The product is a non-volatile solid.	

Particle characteristics

Particle size distribution:	100 - 125 µm	(D50, Volumetric Distribution, measured)
	fine particles	
Particle Shape:	spheres	

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating (Regulation 440/2008/EC, A.17)

Chemical stability
The product is chemically stable.

Possibility of hazardous reactions
The product is stable if stored and handled as prescribed/indicated.
Violent reaction under influence of oxidizing agents. Incompatible with bases. Reacts with nitrites.

Conditions to avoid
Avoid heat. Avoid moisture.

Incompatible materials
nitrites, nitrates, oxidizing agents

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: hydrogen chloride, ammonia

Thermal decomposition:
To avoid thermal decomposition, do not overheat.

11. Toxicological information

Primary routes of exposure

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

Acute Toxicity/Effects

Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact.

Oral
Type of value: LD50
Species: rat (male/female)
Value: 1,410 mg/kg (BASF-Test)

Inhalation
No data available.

Dermal
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (Directive 92/69/EEC, B.3)
No mortality was observed.

Assessment other acute effects
Assessment of STOT single:
Apart from effects causing lethality, no specific target organ toxicity was observed in experimental studies.

Irritation / corrosion
Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Skin
Species: rabbit
Result: non-irritant
Method: Draize test

Eye
Species: rabbit
Result: Irritant.
Method: BASF-Test

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test
Species: guinea pig
Result: Non-sensitizing.
Method: similar to OECD guideline 406

Aspiration Hazard
not applicable

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.
Repeated ingestion of large amounts may lead to metabolic acidosis.

Genetic toxicity
Assessment of mutagenicity: 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.

Carcinogenicity
Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity
Assessment of reproduction toxicity: Study scientifically not justified.

Teratogenicity
Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish
LC50 (96 h) 42,91 mg/l Ammonium chloride, Oncorhynchus mykiss (other, other)

Aquatic invertebrates
EC50 (48 h) 136.6 mg/l, Daphnia magna (other, static)

Aquatic plants
EC50 (5 d) 1,300 mg/l (growth rate), Chlorella vulgaris (other, static)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

EC50 (18 d) 2,700 mg/l (biomass), Chlorella vulgaris (other, static)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to fish
EC10 (30 d) 4,28 mg/l ammonium chloride, Lepomis macrochirus (other, Flow through.)

Chronic toxicity to aquatic invertebrates
EC10 (70 d) 2,52 mg/l ammonium chloride, aquatic crustacea (other, semistatic)

Assessment of terrestrial toxicity
Toxic effects have been observed in studies with soil living organisms.

Soil living organisms

Toxicity to soil dwelling organisms:
LC50 (14 d) 163 mg/kg, Eisenia foetida (other, artificial soil)

Toxicity to terrestrial plants

No observed effect concentration (84 d) 626 mg/l
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Other terrestrial non-mammals
Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aquatic
activated sludge, domestic/EC20 (0.5 h): approx. 850 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or be reduced to nitrogen, by microorganisms.

Elimination information

not applicable

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.
Study scientifically not justified.

Information on Stability in Water (Hydrolysis)
Study scientifically not justified.

Bioaccumulative potential

Assessment bioaccumulation potential
Accumulation in organisms is not to be expected.

Bioaccumulation potential
Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Study scientifically not justified.
Adsorption to solid soil phase is possible.

Additional information

Add. remarks environm. fate & pathway:
The product has not been tested. The statements on environmental fate and pathway have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:
Contact manufacturer regarding recycling. Contact waste centre regarding recycling.

Container disposal:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport
TDG

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.

15. Regulatory Information

Federal Regulations

Not applicable

NFPA Hazard codes:

Health: 2 Fire: 1 Reactivity: 0 Special:

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	4 (oral)	Acute toxicity
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Eye Irrit.	2A	Eye irritation

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/08/14

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This information is considered accurate but is not exhaustive and shall only be used as a guideline based on current knowledge of the chemical substance or mixture. Safety precautions suitable for the product must be applied.

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END OF DATA SHEET