

**1. Product.**

Product Name: Ammonium chloride

**2. Composition / Identification.**

Chemical Characterisation:  $\text{NH}_4\text{Cl}$ .  
CAS-No: 12125-02-9

**3. Hazards Identification.**

Inhalation: Inhalation of fumes irritates respiratory passages.

Ingestion: Ingestion irritates mouth and stomach.

Eye Contact: Fumes are irritating to the eyes.

Skin Contact: Contact with skin may cause irritation.

**4. First Aid Measures.**

Inhalation: Remove the casualty to fresh air. Consult doctor in case of symptoms.

Ingestion: Give large amounts of water. Get medical attention if irritation persists.

Eye Contact: In case of contact with eyes rinse immediately with plenty of water and seek medical advice if symptoms persist.

Skin Contact: Flush with plenty water.

**5. Fire Fighting Procedures.**


Suitable Extinguishing Media: Water, alcoholores, foam halones, dry chemical, carbon dioxide.

Unsafe Extinguishing Media: None.

Further Information: In case of fire wear self-contained breathing apparatus.

**6. Accidental Release Measures.**

After spillage / leakage / gas leak: Take up and collect in tightly closed container.

**7. Handling & Storage.**

Storage: No special requirements but keep container tightly sealed.  
Handling: Prevent formation of dust.

**8. Exposure Controls / Personal Protection.**

Technical: Local exhaust ventilation.

Personal protective equipment:

- |                  |   |
|------------------|---|
| (i) Respiratory; | In case of brief exposure or low pollution use breathing filter apparatus e.g. dust mask. In case of intensive or longer exposure use breathing apparatus that is independent in circulating air. |
| (ii) Hands;      | Rubber gloves.  |
| (iii) Eyes;      | Goggles.  |
| (iv) Other;      | Suitable protective clothing.   |

Industrial hygiene:

- (i) Avoid breathing dust.
- (ii) Before break clean hands.
- (iii) When using do not eat, drink or smoke.

Protection against fire and explosion:

No special measures.

**9. Physical & Chemicals Properties.**

- |                                 |   |
|---------------------------------|---|
| (a) Form :                      | Solid.  |
| (b) Colour:                     | Colourless.   |
| (c) Odour:                      | Odourless.  |
| (d) Change in physical state :  | Sublimes at 340 <sup>0</sup> C<br>Boiling temp. 520 <sup>0</sup> C (pressure unknown) |
| (e) Density:                    | Bulk density 650 kg /mg <sup>3</sup>  |
| (f) Vapour pressure:            | n/a.  |
| (g) Viscosity:                  | n/a.  |
| (h) Solubility in water:        | @ 20 <sup>0</sup> C 297 g/l<br>@ 100 <sup>0</sup> C 758 g/l                           |
| (i) pH (at g/l H <sub>2</sub> O | n/a   |
| (j) Flash point:                | n/a   |
| (k) Ignition temperature:       | n/a.  |
| (l) Explosion limits:           | n/a   |

**10. Stability & Reactivity.**

Thermal decomposition: No decomposition if used as prescribed.  
Hazardous reactions: None known.

Hazardous decomposition products: None known.

## 11. Toxicological Information.

Warning! Harmful if swallowed. Irritating to eyes.

NIOSH 7 / 85 BP 455

IRDS: eye - rbt 500 mg / 24 H SEV

TXDS: orl - rat LD<sub>50</sub> : 1650 mg / kg.  
orl - dog LDL<sub>0</sub> : 600 mg / kg.  
orl - rbt LDL<sub>0</sub> : 1000 mg / kg.  
orl - dom LDL<sub>0</sub> : 1500 mg / kg.

## 12. Ecological Information.

Aquatic toxicity; 6 ppm / 96 hr / sunfish TL<sub>m</sub> / fresh water.

Waterfowl toxicity: Data not available.

BOD: Data not available.

Food chain Concentration Potential. None

Do not allow undiluted product or large quantities of it to reach ground water water bodies or sewage system


## 13. Disposal.

The product must be taken to a qualified burning plant with flue gas dust scrubber.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging : Disposal must be made according to official regulations.

## 14. Transport Information.



Land Transport: ADR / RID and GGVS / GGVE (cross border domestic).  
ARD / RID - GGVS / E class.

Maritime transport: IMDG / GGVSea  
IMDG / GGVSea.

Air transport: ICAO - TI and IATA - DGR.  
ICAO /IATA class.

Transport regulations for hazardous goods : Not restricted.

## 15. Regulatory Information.

Labelling in accordance with EC directives / ordinance on hazardous materials (Gergtoffv)

Symbols: Xn Harmful.

R phrases: R22 Harmful if swallowed.  
R36 Irritating to eyes.

S phrases: S2 Keep out of the reach of children.  
S22 Do not breathe dust.  
S28 After contact with skin wash immediately with plenty of water.

Swiss Poison List: Class 4

TLV - TWA: 10 mg / kg ; STEL 20 mg / m<sup>3</sup> (vapour).

## 16 Other Information.

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