

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifiers**Product name: **AMMONIUM CHLORIDE**CAS-No.: **12125-02-9**Product Number: **A65845****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,  
UNITED KINGDOM

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Email: enquiries@philipharris.co.uk

**1.4 Emergency telephone number**Emergency Phone #: **+44 (0)845 1200 506****2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

According to Regulation (EC) No1272/2008: Acute toxicity (Category 4); Eye irritation (Category 2)

According to European Directive 67/548/EEC as amended: Harmful if swallowed; Irritating to eyes.

**2.2 Label elements****Labelling according Regulation (EC) No 1272/2008 [CLP]**

Pictogram:



Signal word:

WARNING

Hazard statement(s)

H319 Causes serious eye irritation.

H302 Harmful if swallowed.

Precautionary statement(s)

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazard symbol(s)

Xn Harmful

R-phrase(s)

R22 Harmful if swallowed.

R36 Irritating to eyes.

S-phrase(s)

S22 Do not breathe dust.

**2.3 Other hazards** – none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

**Ammonium chloride** (*Synonyms: Salmiac*)

Formula: **NH<sub>4</sub>Cl**

Molecular Weight: **53.49g/mol**

Component Concentration: -

CAS-No.: **12125-02-9**

EC-No.: **235-186-4**

### 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.

##### In case of skin contact:

Rinse thoroughly with plenty of water for at least 15 minutes.

##### 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.

#### 4.2 Most important symptoms and effects, both acute and delayed

no data available

#### 4.3 Indication of immediate medical attention and special treatment needed

no data available

## **5. FIRE-FIGHTING 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**

no data available

### **5.3 Precautions for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **5.4 Further information**

The product itself does not burn.

## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

### **6.4 Reference to other sections**

For disposal see section 13.

## **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.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic

### **7.3 Specific end uses**

no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Ammonium chloride	12125-02-9	TWA	10mg/m <sup>3</sup>	2005-04-06
Ammonium chloride	12125-02-9	STEL	20mg/m <sup>3</sup>	2005-04-06

UK. EH40 Occupational Exposure Limits

Remarks The word 'fume' is often used to include gases and vapours. This is not the case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilization from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.

### 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

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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance:           **Form:** Solid           **Colour:** no data available  
b) Odour:                           no data available  
c) Odour Threshold:           no data available  
d) pH:                             4.5 - 5.5 at 50.00000 g/L at 20.0 °C  
e) Melting/freezing point:    Melting point/range: 340.0 °C  
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:             1.3 hPa at 160.4 °C  
l) Vapour density:              no data available  
m) Relative density:            1.00 g/cm<sup>3</sup>  
n) Water solubility:            Soluble  
o) Partition coefficient: n-octanol/water: no data available  
p) Autoignition 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

## 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

Exposure to moisture may affect product quality.

### 10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Ammonia, Hydrogen Chloride gas

## **11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

LD50 Oral - rat - 1,650 mg/kg

#### **Skin corrosion/irritation**

Skin - rabbit - No skin irritation

#### **Serious eye damage/eye irritation**

Eyes - rabbit - Eye irritation

#### **Respiratory or skin sensitization**

Will not occur

#### **Germ cell mutagenicity**

no data available

#### **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

#### **Specific target organ toxicity - single exposure**

no data available

#### **Specific target organ toxicity - repeated exposure**

no data available

#### **Aspiration hazard**

no data available

#### **Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

#### **Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### **Additional Information**

RTECS: BP4550000

## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Toxicity to fish LC50 - *Cyprinus carpio* (Carp) - 209.00 mg/L - 96 h

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 3.98 mg/L - 96 h

NOEC - *Oncorhynchus mykiss* (rainbow trout) - 57 mg/L - 96 h

Toxicity to daphnia and other aquatic invertebrates.

LC50 - *Daphnia magna* (Water flea) - 161 mg/L - 48 h

Growth inhibition NOEC - *Daphnia magna* (Water flea) - 0.1 mg/L - 216 h

### **12.2 Persistence and degradability**

no data available

### **12.3 Bioaccumulative potential**

no data available

### **12.4 Mobility in soil**

no data available

### **12.5 Results of PBT and vPvB assessment**

no data available

### **12.6 Other adverse effects**

no data available

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

#### **Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

#### **Contaminated packaging**

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN-Number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for users

no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

### 15.2 Chemical Safety Assessment

no data available

## 16. OTHER INFORMATION

### Text of H-code(s) and R-phrase(s)

Acute Tox. Acute toxicity

Eye Irrit. Eye irritation

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

Xn Harmful

R22 Harmful if swallowed.

R36 Irritating to eyes.