

Section 1. Identification

1.1 Product Identifier 0070

Product Name AMMONIUM NITRATE pure

CAS Number 6484-52-2

REACH Registration No 01-2119490981-28-XXXX

Molecular Formula NH_4NO_3 = 80.04

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Vickers Laboratories Ltd



Grangefield Industrial Estate
Richardshaw Road
Pudsey
West Yorkshire
LS28 6QW
UNITED KINGDOM

Phone 44 0113 2362811
Fax +44(0)113 2362703
Email safety@viclabs.co.uk
Website www.viclabs.co.uk

1.4 Emergency Telephone (08:00-16:30) +44(0) 113 2362811 (24hr) 112 (Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Oxidising solid, category 3

Skin corrosion/irritation, category 2

Serious eye damage/irritation, category 2

Spec target organ tox - single, category 3

H272: May intensify fire; oxidizer.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Warning

Hazard Pictograms



Hazard Statements May intensify fire; oxidizer. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep / Store away from clothing / combustible materials. Take any precaution to avoid mixing with combustibles... Wear protective gloves / protective clothing / eye protection.

Section 3. Composition

3.1 Substances

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|------------------|-----------|-----------|-----------------------|----------|--|
| Ammonium nitrate | 6484-52-2 | 229-347-8 | 01-2119490981-28-XXXX | >99.9% | Ox. Sol. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I) |

Section 4. First Aid

4.1 Description of first aid measures

| | |
|--------------------------------------|---|
| Eyes | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION. |
| Skin | Wash off skin thoroughly with water. |
| Inhalation | Remove from exposure. If material has reacted with an acid to form, nitrous fumes, Obtain immediate medical attention even if patient is not complaining of discomfort. |
| Ingestion | If conscious give plenty of water to drink. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION URGENTLY. |
| Personal protection for first aiders | Wear protective gloves / eye protection. |

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

| | |
|---------------------|--------------------|
| Extinguishing Media | Water spray. |
| Unsuitable Media | Nothing specified. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------|--|
| Hazards | May evolve toxic fumes if involved in a fire. Mixtures with combustible materials are flammable. Mixtures with finely divided combustible materials can react explosively. |
|---------|--|

5.3 Advice for firefighters

| | |
|-------------------------|--|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|--|

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---------------------|--|
| Personal Protection | Evacuate area immediately. If contact with acid is possible, use full protective clothing and breathing apparatus. Only re-enter area with full protective clothing and breathing apparatus. |
|---------------------|--|

6.2 Environmental precautions

| | |
|---------------|--|
| Environmental | Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
|---------------|--|

6.3 Methods and material for containment and cleaning up

Major Spillage Shovel/sweep up into container for removal Wash area down with copious amounts of water.
Minor Spillage Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.
Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Product is hygroscopic: store in sealed containers away from heat, light and humidity. Store in a suitable area for oxidising agents. Keep well separated from combustible materials.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

| Component | CAS No | Concentration | Workplace Exposure Limits | |
|------------------|-----------|---------------|---------------------------|--------------------------|
| | | | Long Term (8hr TWA) | Short Term 15min period) |
| Ammonium nitrate | 6484-52-2 | >99.9% | - | - |

Exposure data source(s) No occupational exposure data currently available.

8.2 Exposure controls

Respiratory Protection If process creates significant amounts of dust use L.E.V. or wear suitable dust mask.
Hand Protection Wear gloves.
Eye Protection Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance White, very deliquescent crystals or crystalline mass.
Odour No specific odour.
pH 5 @ 20°C solution.
Boiling Point 210°C
Melting Point 169°C
Flash Point Not applicable
Upper Flammable Limit Not applicable
Lower Flammable Limit Not applicable
Auto Ignition Not applicable
Explosive Properties Can form explosive mixtures with organic matter.
Oxidising Properties A strong oxidising agent.
Vapour Pressure Not applicable
Relative Density 1.7250
Water Solubility Very soluble in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

| | | |
|------|------------------------------------|---|
| 10.1 | Reactivity | No data available. |
| 10.2 | Chemical Stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | No data available. |
| 10.4 | Conditions to Avoid | Avoid contact with acids or combustible materials. |
| 10.5 | Incompatible Materials | Combustible materials, flammable material, many other sources of contamination. Acids : reacts to form poisonous nitrous fumes. |
| 10.6 | Hazardous Decomposition Products | Not flammable but will assist a fire, producing irritant and toxic fumes of oxides of nitrogen. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|--|
| Eyes | Causes serious eye irritation. |
| Skin | The solid and solutions may be irritating to the skin. |
| LD50 Skin | Not available |
| Ingestion | Low order of acute toxicity. |
| LD50 Oral | 2217mg/kg Rat |
| Inhalation | May cause respiratory irritation. |
| LD50 Inhalation | Not available |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | None identified. |

Section 12. Ecological

| | | |
|------|----------------------------------|---|
| 12.1 | Toxicity | Low levels are readily bio-degraded in the environment. Higher levels are toxic to marine and plant life. |
| | LC50 Algal | Not available |
| | LC50 Crustacea | Not available |
| | LC50 Fish | Not available |
| 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 & vPvB assessment | Assessment not required. |
| 12.6 | Other adverse effects | None known at present. |

Section 13. Disposal Considerations

13.1 Waste treatment methods

| | |
|------------------------|--------------------------------------|
| Disposal Methods | Do not dispose of as domestic waste. |
| Contaminated Packaging | Wash out containers with water. |

Section 14. Transport Information

| | |
|--|----------------------------------|
| 14.1 UN Number | 1942 |
| 14.2 Proper Shipping Name | Ammonium nitrate |
| 14.3 Transport classes | |
| UN classification | 5.1 |
| Subsidiary hazard(s) | None |
| Transport category | 3 |
| ADR Hazard ID | 50 |
| Tunnel Restriction Code | E |
| 14.4 Packing Group | III |
| 14.5 Environment hazards | See section 12. |
| 14.6 Special precautions for user | No special precautions required. |
| 14.7 Transport in bulk | Not transported in bulk. |



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Oxidising solid, category 3; Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3

Signal word Warning

Hazard Pictograms



Hazard Statements H272, H315, H319, H335
May intensify fire; oxidizer. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Precautionary Statements P210, P220, P221, P280
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Keep / Store away from clothing / combustible materials. Take any precaution to avoid mixing with combustibles... Wear protective gloves / protective clothing / eye protection.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.1 (Supercedes revision 1.0)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 03 February 2023

Copyright: 2023 Vickers Laboratories Ltd