

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 Version 5.0 Revision Date 08.08.2012

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Ammonium nitrate

Product Number : 52-7410

Brand : Rapid

CAS-No. : 6484-52-2

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 : Rapid Electronics,
Severalls Lane,
Colchester,
Essex,
CO4 5JS, United Kingdom

Telephone : +44 (0) 1206 751166

Fax : +44 (0) 1206 751188

E-mail address : sales@rapidelec.co.uk

1.4 Emergency telephone number

Emergency Phone # : +44 (0) 1206 751166

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Oxidizing solids (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Contact with combustible material may cause fire. Irritating to eyes, respiratory system and skin.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]



Pictogram

Signal word

Warning

Hazard statement(s)

H272

May intensify fire; oxidiser.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

P220

Keep/Store away from clothing/ combustible materials.

P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338

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

Supplemental Hazard Statements

none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrases(s)

R 8

R36/37/38

Contact with combustible material may cause fire.

Irritating to eyes, respiratory system and skin.

S-phrase(s)

S17

S26

Keep away from combustible material.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36

Wear suitable protective clothing.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : $\text{H}_4\text{N}_2\text{O}_3$

Molecular Weight : 80.04 g/mol

Component	Concentration
Ammonium nitrate	
CAS-No. 6484-52-2	-
EC-No. 229-347-8	

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. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING 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**
nitrogen oxides (NO_x)
- 5.3 Advice for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 Further information**
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
- 6.2 Environmental precautions**
Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up**
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 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. Keep away from sources of ignition
- No smoking. Keep away from heat and sources of ignition.
- 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. Store under inert gas.
- 7.3 Specific end uses**
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

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

Safety glasses with side-shields conforming to EN166 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.

Immersion protection

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 480 min
Material tested: Dermatril® (Aldrich Z677272, Size M)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 30 min
Material tested: Dermatril® (Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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 |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | 4.5 - 6.0 at 80.40 g/l at 25 °C |
| e) Melting point/freezing point | Melting point/range: 169 °C - lit. |
| f) Initial boiling point and boiling range | 210 °C - lit. |
| 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 | no data available |
| l) Vapour density | no data available |
| m) Relative density | 1.72 g/cm ³ at 20 °C |
| n) Water solubility | 2,130 g/l at 25 °C |
| o) Partition coefficient: n-octanol/water | no data available |
| p) Autoignition temperature | no data available |
| q) Decomposition | no data available |

temperature

- r) Viscosity no data available
- s) Explosive properties no data available
- t) Oxidizing properties The substance or mixture is classified as oxidizing with the category 3.

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Reducing agents, Powdered metals, Strong acids

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 2,217 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 2A - Group 2A: Probably carcinogenic to humans (Ammonium nitrate)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes serious eye irritation.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: BR9050000

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data 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 and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1942

IMDG: 1942

IATA: 1942

14.2 UN proper shipping name

ADR/RID: AMMONIUM NITRATE

IMDG: AMMONIUM NITRATE

IATA: Ammonium nitrate

14.3 Transport hazard class(es)

ADR/RID: 5.1

IMDG: 5.1

IATA: 5.1

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

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**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.