



SAFETY DATA SHEET

Technical Ammonium Nitrate

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Product name : Technical Ammonium Nitrate

Use of the substance/preparation : Manufacture of chemicals. Manufacture of intermediates.

Company/undertaking identification

Manufacturer / Supplier : Yara AB
Industrial
P.O.Box 516
SE-261 24 Landskrona
Sweden

Tel: +46 (0) 418-761 00

Fax: +46 (0) 418-237 60

Emergency telephone number : SOS Alarm 112
Yara, Köping +46 (0) 221 278 01 for further product information

2. Composition/information on ingredients

Substance/preparation : Substance

Ingredient name	CAS number	%	EC number	Classification
ammonium nitrate See section 16 for the full text of the R-phrases declared above	6484-52-2	99 - 100	229-347-8	O; May intensify fire

Occupational exposure limits, if available, are listed in section 8.

The nitrate(s) is/are classified as oxidizer(s) in accordance with the EU Directives 67/548/EEC. With reference to Annex VI, 2.1 second paragraph, the correct hazard is given as "May intensify fire" as proposed in the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

3. Hazards identification

The substance is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification : O; May intensify fire

Physical/chemical hazards : The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides and ammonia. Heating under strong confinement and/or contamination can lead to explosive behaviour.

See section 11 for more detailed information on health effects and symptoms.

4. First-aid measures

Inhalation : Avoid breathing dust. If inhaled, remove to fresh air.

Ingestion : If large quantities of this material are swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact : Avoid prolonged or repeated contact with skin. After handling, always wash hands thoroughly with soap and water. Get medical attention if irritation develops.

Eye contact : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if irritation occurs.

See section 11 for more detailed information on health effects and symptoms.

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5. Fire-fighting measures

- Extinguishing media** : Use water only in flooding quantities. Find the fire source and try to control it if safe to do so. Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
- Special exposure hazards** : Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
Avoid breathing dusts, vapours or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
- Hazardous thermal decomposition products** : These products are nitrogen oxides (NO, NO₂ etc.), laughing gas (N₂O), ammonia (NH₃).
- Remark** : The product itself is not combustible but it can support combustion, even in absence of air. On heating it melts and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides and ammonia. Heating under strong confinement and/or contamination can lead to explosive behaviour.
- Remark Incompatibility** : Contamination by substances such as organic materials, metallic powders, chlorine containing compounds, alkalines, hypochlorites and reducing agents decrease the resistance to detonation.

6. Accidental release measures

- Personal precautions** : Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilt material.
If released in large quantities: Immediately contact emergency personnel.
- Environmental precautions and clean-up methods** : Avoid contamination by any source including metal powder and organic materials. Keep away from heat, sparks and flame. Risk of explosion if heated under confinement. Avoid contact of spilled material and runoff with soil and water courses.
: If emergency personnel are not present, sweep up small spillages, avoiding making dust and place in a suitable container for disposal. Avoid creating dusty conditions and prevent wind dispersal.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Avoid contact with eyes, skin and clothing. Avoid creating dust when handling and avoid all possible sources of ignition (spark or flame). Avoid contamination by any source including metal powder and organic materials.
- Storage** : Store in a dry, cool and well-ventilated area. Do not store in confined areas. Store and use away from heat, sparks, open flame, or any other ignition source. Avoid contact with combustible materials. Store in a segregated, approved and labelled area.
:

8. Exposure controls/personal protection

- Occupational exposure limits** : Total inhalable dust - 10 mg/m³
Respirable dust - 5 mg/m³
- Exposure controls**
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: If dust is generated, use respirator that will protect against dust/mist. P2
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour(s) (breakthrough time): butyl rubber , natural rubber (latex) , nitrile rubber
- Eye protection** : Recommended: Use dust goggles if dust is generated.

8. Exposure controls/personal protection

- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
 Feet: Recommended: Suitable protective footwear.
 Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.

9. Physical and chemical properties

General information

Appearance

- Physical state** : Solid. (Hygroscopic)
Colour : White.
Odour : Odourless.

Important health, safety and environmental information

- pH** : >4.5 (Conc. (% w/w): 10) [Acidic.]
Boiling point : Decomposition temperature: >170°C (338°F)
Melting/freezing point : 170°C (338°F)
Density (g/cm³) : 0.7 to 1.05 g/cm³
Solubility : Easily soluble in cold water
Solubility (at 20°C) : 1877g/l

10. Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
Materials to avoid : Contamination by substances such as organic materials, metallic powders, chlorine containing compounds, alkalines, hypochlorites and reducing agents decrease the resistance to detonation.
Hazardous thermal decomposition products : These products are nitrogen oxides (NO, NO₂ etc.), laughing gas (N₂O), ammonia (NH₃).
Remark Incompatibility : Contamination by substances such as organic materials, metallic powders, chlorine containing compounds, alkalines, hypochlorites and reducing agents decrease the resistance to detonation.

11. Toxicological information

Potential acute health effects

- Inhalation** : Adverse health effects are considered unlikely, when the product is used according to directions.
Ingestion : Adverse health effects are considered unlikely, when the product is used according to directions.
Skin Contact : Slight irritant
Eye contact : Slight irritant

Acute toxicity

Ingredient name	Test	Result	Route	Species
ammonium nitrate	LD50	2217 mg/kg	Oral	Rat

Over-exposure signs/symptoms

- Ingestion** : May cause Methaemoglobinaemia and Cyanosis.

12. Ecological information

Adverse effects : The product is not expected to harm the environment when used properly according to directions.

Remarks : The product does not show any bioaccumulation phenomena.

13. Disposal considerations




Methods of disposal :
Dispose of in accordance with all applicable local and national regulations.
Empty containers, free of residues, can be returned to a local recycling center.

European waste catalogue (EWC) : 06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

Hazardous waste : This material and its container must be disposed of as hazardous waste.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	UN1942	AMMONIUM NITRATE	5.1	III		Hazard identification number 50 Limited quantity LQ12
IMDG Class	UN1942	AMMONIUM NITRATE	5.1	III		Emergency schedules (EmS) F-H, S-Q
IATA-DGR Class	UN1942	AMMONIUM NITRATE	5.1	III		-

15. Regulatory information

EU regulations

Hazard symbol/symbols :



Oxidising

Risk phrases : May intensify fire

Safety phrases : S17- Keep away from combustible material.
S41- In case of fire and/or explosion do not breathe fumes.

Product use : Industrial applications.

Classification and labelling have been performed according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and the intended use.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Sweden May intensify fire

Full text of classifications referred to in sections 2 and 3 - Sweden O - Oxidising

History

Date of issue 2007-03-30.

Date of previous issue No previous validation.

Version 1

▣ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material (s) or when used otherwise than as described herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used with caution. Yara International ASA disclaims any liability for loss or damage resulting from the use of any data, information or recommendations set out in this Safety Data Sheet.

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