

EC safety data sheet

Ammonium nitrate
AM-AG001

Status: 14.03.2012

1.3.0, issued: 14.03.2012

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

Ammonium nitrate

Identification numbers

CAS no. 6484-52-2
EC no. 229-347-8

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

Relevant identified uses of the substance or mixture

Manufacturing of the substance, including handling, storage and q control.

Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities.
Industrial/professional setting.

Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities.
Industrial/professional setting.

Storage.

Transfer of substance into small containers (dedicated filling line, including weighing). Industrial/professional setting.
Q control.

Use of ammonium nitrate in the manufacturing of formulations for adhesives and sealants, explosives, fertilizers and water treatment chemicals.

Treating or coating of seed with fertilizer containing ammonium nitrate.

Use of ammonium nitrate as an intermediate to synthesise other substances.

Professional use of fertilizers containing ammonium nitrate – liquid fertigation at open field (non industrial spraying).

Professional use of fertilizers containing ammonium nitrate – liquid fertigation in the soil.

Professional use of fertilizers containing ammonium nitrate – fertigation at open field.

Professional use of fertilizers containing ammonium nitrate – outdoor mixing.

Professional use of fertilizers containing ammonium nitrate – indoor mixing.

Professional use of fertilizers containing ammonium nitrate – greenhouse liquid fertigation in the soil.

Professional use of fertilizers containing ammonium nitrate – greenhouse liquid fertigation (non industrial spraying).

Uses advised against

None known

1.3 Details of the supplier of the safety data sheet

Address

Ameropa AG
Rebgasse 108
CH-4102 Binningen

Telephone no. +41 61 301 2711
Fax no. +41 61 302 9863

Advice on Safety Data Sheet

info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Eye Irrit. 2; H319

Ox. Sol. 3; H272

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

O; R8

Xi; R36

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

6484-52-2 (ammonium nitrate)

Hazard pictograms



GHS03



GHS07

Signal word

Warning

Hazard statements

H272

May intensify fire; oxidiser.

H319

Causes serious eye irritation.

Precautionary statements

P210

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P220

Keep/Store away from clothing/.../combustible materials.

P305+P351+P338

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

P370+P378.17

In case of fire: Use water spray, extinguishing powder, foam or CO2 for extinction.

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

Substance name ammonium nitrate

Identification numbers

CAS no. 6484-52-2

EC no. 229-347-8

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion

Rinse out mouth and give plenty of water to drink. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Oxygen

5.3 Advice for firefighters

Use self-contained breathing apparatus. The product is not combustible, however it promotes fire. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid the formation and deposition of dust. Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far as possible by the state of the art.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust. Remove soiled or soaked clothing immediately.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from atmospheric moisture and water. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container.

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Advice on storage assembly

Do not store together with: Alcalies; Reducing agents; Alkalies; Do not store with combustible materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL und PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	ammonium nitrate			6484-52-2 229-347-8
	dermal	Long term (chronic)	systemic	21,3 mg/kg/day
	inhalational	Long term (chronic)	systemic	37,6 mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no
	Route of exposure	Exposure time	Effect	Value
1	ammonium nitrate			6484-52-2 229-347-8
	oral	Long term (chronic)	systemic	12,8 mg/kg/day
	dermal	Long term (chronic)	systemic	12,8 mg/kg/day
	inhalational	Long term (chronic)	systemic	11,1 mg/m ³

PNEC values

No	Substance name		CAS / EC no
	ecological compartment	Type	Value
1	ammonium nitrate		6484-52-2 229-347-8
	water	fresh water	0,45 mg/l
	water	marine water	0,045 mg/l
	sewage treatment plant	-	18 mg/l

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. Dust mask

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Protective gloves (EN 374); Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
crystalline	
white	
Odour	
odourless	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point / melting range	
Value	169,6 °C
Source	CSR
Decomposition point / decomposition range	
No data available	
Flash point	
Not applicable	
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
No data available	
Upper flammability or explosive limits	
No data available	
Vapour pressure	
No data available	
Vapour density	
No data available	
Evaporation rate	
No data available	
Relative density	
No data available	
Density	
Value	1,72
Reference temperature	20 °C
Source	CSR
Remarks	Relative density
Solubility in water	
Value	> 100 g/l
Reference temperature	20 °C
Source	CSR

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Solubility(ies)

No data available

Partition coefficient: n-octanol/water

No data available

Viscosity

No data available

SECTION 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

Heat

10.5 Incompatible materials

Alcalis; Alkalies; Reducing agents; combustible materials

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

LD50	2950	mg/kg
Species	rat	
Method	OECD 401	
Source	CSR	

Acute dermal toxicity

LD50	>	5000	mg/kg
Species	rat		
Method	OECD 402		
Source	CSR		

Acute inhalational toxicity

LC50	>	88,8	mg/l
Species	rat		
Source	CSR		

Skin corrosion/irritation

Species	rabbit
Method	OECD 404
Source	CSR
Evaluation	non-irritant

Serious eye damage/irritation

Species	rabbit
Method	OECD 405
Source	CSR
Evaluation	irritant

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Respiratory or skin sensitisation	
Route of exposure	Skin
Species	mouse
Method	OECD 429
Source	CSR
Evaluation	non-sensitizing

Germ cell mutagenicity	
Source	CSR
Evaluation	negative

Reproduction toxicity	
Route of exposure	900
Duration of exposure	>= 1500 mg/kg 1 d
Type of examination	NOAEL
Species	rat
Method	OECD 422
Source	CSR

Carcinogenicity	
No data available	

STOT-single exposure	
No data available	

STOT-repeated exposure	
No data available	

Aspiration hazard	
No data available	

Delayed and immediate effects as well as chronic effects from short and long-term exposure	
Inhalation of dusts may irritate the respiratory tract.	

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity	
LC50	447 mg/l
Duration of exposure	48 h
Species	Cyprinus carpio
Source	CSR

Daphnia toxicity	
EC50	490 mg/l
Duration of exposure	48 h
Species	Daphnia magna
Source	CSR

Algae toxicity	
EC50	> 1700 mg/l
Source	CSR

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Bacteria 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.

12.7 Other information

Other information

Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	5.1
Classification code	O2
Packing group	III
Hazard identification no.	50
UN number	UN1942
Technical name	AMMONIUM NITRATE
Tunnel restriction code	E
Label	5.1

14.2 Transport IMDG

Class	5.1
Packing group	III
UN number	UN1942
Proper shipping name	AMMONIUM NITRATE
EmS	F-H+S-Q
Label	5.1

14.3 Transport ICAO-TI / IATA

Class	5.1
Packing group	III
UN number	UN1942
Proper shipping name	Ammonium nitrate
Label	5.1

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14.4 Other information

No data available.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex I, part 2, category 3

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R8 Contact with combustible material may cause fire.

R36 Irritating to eyes.

Department issuing safety data sheet

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