



SAFETY DATA SHEET AMMONIUM SULPHAMATE

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

1.1. Product identifier

Product name	AMMONIUM SULPHAMATE
Product number	A09
CAS number	7773-06-0
EC number	231-871-7

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

Identified uses	Industrial use. Flame retardants.
Uses advised against	No information available.

1.3. Details of the supplier of the safety data sheet

Supplier	Norkem Limited, Norkem House, Bexton Lane, Knutsford, Cheshire, WA16 9FB. UK. T: + 44 (0)1565 755550 F: + 44 (0)1565 755496 datasheet@norkem.com
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1.4. Emergency telephone number

Emergency telephone	T: 01270 502891 (English-language only response)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302
Environmental hazards	Not Classified

2.2. Label elements

EC number	231-871-7
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Pictogram



Signal word	Warning
Hazard statements	H302 Harmful if swallowed.

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Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P301+P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. P330 Rinse mouth. P501 Dispose of contents/ container in accordance with national regulations.
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2.3. Other hazards

May be corrosive to metals. (Mild steel.)

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name	AMMONIUM SULPHAMATE
CAS number	7773-06-0
EC number	231-871-7
Composition comments	Purity > 98%

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Give plenty of water to drink. Get medical attention if any discomfort continues. / Contact physician if larger quantity has been consumed.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse.
Eye contact	Rinse with water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

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

Eye contact	Redness. Pain.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. The product is non-combustible.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Risk of explosion if heated. Reactions with the following materials may cause explosions: Hot acidic solutions.
Hazardous combustion products	Ammonia. Sulphurous gases (SO _x). Nitrous gases (NO _x).

5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of dust. Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Avoid generation and spreading of dust. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Do not handle broken packages without protective equipment. Provide adequate ventilation. Keep away from heat, sparks and open flame. Isolate from incompatible materials (see 10.5).

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³

Short-term exposure limit (15-minute): WEL 20 mg/m³

WEL = Workplace Exposure Limit

8.2. Exposure controls

Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection Provide eyewash station and safety shower. Wear appropriate clothing to prevent skin contamination.

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Hygiene measures	Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If ventilation is inadequate, suitable respiratory protection must be worn. Particulate filter, type P2. Particulate filters should comply with European Standard EN143.
Environmental exposure controls	Avoid releasing into the environment. Do not discharge into drains or watercourses or onto the ground.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Crystals.
Colour	White.
Odour	Mild. Amine.
pH	pH (diluted solution): 4.9 @ 0.2 M
Melting point	131°C
Initial boiling point and range	160°C . The sample decomposes before boiling.
Flash point	Endpoint waived according to REACH Annex VII, IX or XI. Substance is inorganic.
Flammability (solid, gas)	The product is not flammable.
Vapour pressure	Negligible.
Relative density	1.769
Solubility(ies)	Soluble in water. 103 g/100 g water @ 25°C
Partition coefficient	Endpoint waived according to REACH Annex VII, IX or XI. Substance is inorganic.
Auto-ignition temperature	Data lacking.
Decomposition Temperature	> 160°C
Viscosity	Not relevant.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties. Risk of explosion if heated. Reactions with the following materials may cause explosions: Hot acidic solutions.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Risk of explosion if heated. Reactions with the following materials may cause explosions: Hot acidic solutions.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Risk of explosion if heated. Reactions with the following materials may cause explosions: Hot acidic solutions.

10.4. Conditions to avoid

Conditions to avoid Avoid heat. Water, moisture. The substance is hygroscopic and will absorb water by contact with the moisture in the air.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Water, steam, water mixtures. Acids. Hot acidic solutions. Metal chlorates. Sodium nitrite. Potassium. Sodium.

10.6. Hazardous decomposition products

Hazardous decomposition products Ammonia. Sulphurous gases (SO_x).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 2,000.0

Acute toxicity - dermal

Notes (dermal LD₅₀) Data lacking.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Data lacking.

Skin corrosion/irritation

Animal data Data lacking.

Serious eye damage/irritation

Serious eye damage/irritation Data lacking.

Germ cell mutagenicity

Genotoxicity - in vitro Data lacking.

Carcinogenicity

Carcinogenicity Data lacking.

IARC carcinogenicity Not listed.

Reproductive toxicity

Reproductive toxicity - development Data lacking.

Specific target organ toxicity - single exposure

STOT - single exposure Data lacking.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Data lacking.

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Aspiration hazard

Aspiration hazard Not relevant.

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity - fish LC₅₀, 48 hours: > 1000 mg/l, Cyprinus carpio (Common carp)

12.2. Persistence and degradability

Persistence and degradability No information available.

Biodegradation

The product contains only inorganic substances which are not biodegradable.

12.3. Bioaccumulative potential

Partition coefficient Endpoint waived according to REACH Annex VII, IX or XI. Substance is inorganic.

12.4. Mobility in soil

Mobility

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects The product may contribute to an excessive enrichment of the aquatic environment with nutrients.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

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Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	The following information is provided to conform with article 13 of the EC Directive on Packaging and Packaging Waste 94/62/EC: <ul style="list-style-type: none"> • Wherever possible we use returnable packaging and pallets. Details of these are on our Sales Contracts • For any non-returnable packaging the cost of disposal is at your expense, but we do have a list of reprocessors available • In most cases, but not all, we are able to supply products in returnable packaging but the additional cost of this will be for the customer's expense. Please ask for details with your specific requirements • Any products supplied in returnable packaging is clearly marked to this effect.
Key literature references and sources for data	Supplier's information. International Chemical Safety Card, www.inchem.org . U.S. National Library of Medicine - Hazardous Substances Database (HSDB), http://toxnet.nlm.nih.gov/ .
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	03/10/2016
Revision	3
Supersedes date	21/10/2014
Hazard statements in full	H302 Harmful if swallowed.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.