



# Product Information Sheet

Ammonium Sulfate 21-0-0

**NOTE: THIS IS NOT A MATERIAL SAFETY DATA SHEET SINCE NONE IS REQUIRED FOR THIS PRODUCT. IT IS PROVIDED FOR EMPLOYEE INFORMATION ONLY.**

## Section 1. Chemical product and company identification

**Trade name** : Ammonium Sulfate 21-0-0  
**Manufacturer** : Yara North America, Inc  
100 North Tampa Street  
Suite 3200  
P.O. Box 24926  
Tampa, FL 33623  
USA  
Tel: +1 813 222 5700  
Fax: +1 813 875 5735

**Validation date** : 2005-08-12.  
**Print date** : 2005-08-12.  
**Responsible name** : Bill Easterwood  
**In case of emergency** : Additional Product Information: 813-222-5700  
or Chemtrec 24-hours Emergency Resonse: 1-800-424-9300

## Section 2. Composition, information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Ammonium sulfate	7783-20-2	100

## Section 3. Hazards identification

**Physical state** : Solid. (Crystalline solid.)  
**Emergency overview** : No specific hazard.  
**Potential acute health effects**

**Eyes** : Slightly irritating to the eyes.  
**Skin** : Slightly irritating to the skin.  
**Inhalation** : Slightly irritating to the respiratory system.  
**Ingestion** : No known significant effects or critical hazards.  
**Carcinogenic effects** : No known significant effects or critical hazards.  
**Mutagenic effects** : No known significant effects or critical hazards.  
**Reproduction toxicity** : No known significant effects or critical hazards.

See toxicological Information (section 11)

## Section 4. First aid measures

**Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Get medical attention if irritation occurs. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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- Inhalation** : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Section 5. Fire fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Products of combustion** : These products are nitrogen oxides (NO, NO<sub>2</sub> etc.), sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub> etc.).
- Fire-fighting media and instructions** : In case of fire, use water spray (fog), foam or dry chemical.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.


## Section 7. Handling and storage

- Handling** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Avoid contamination by any source including metals, dust and organic materials.
- Storage** : Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with combustible materials.

## Section 8. Exposure controls, personal protection

- Engineering controls** : Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- Personal protection**
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.  
Recommended: safety glasses with side-shields
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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- Respiratory** : 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.
- Hands** : 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/hours (breakthrough time): butyl rubber , natural rubber (latex) , nitrile rubber .
- Personal protective equipment (Pictograms)** : 
- Personal protection in case of a large spill** : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be adequate. Consult a specialist before handling this product.
- Consult local authorities for acceptable exposure limits.**

## Section 9. Physical and chemical properties

- Physical state** : Solid. (Crystalline solid.)
- Color** : White. Off-white.
- Odor** : Odorless.
- Molecular formula** :  $(\text{NH}_4)_2\text{SO}_4$
- Melting/freezing point** : Decomposition temperature: 235.01°C (455°F)
- Specific gravity** : 1.77 (Water = 1)
- Density (g/cm<sup>3</sup>)** : 1.78 g/cm<sup>3</sup>
- Bulk Density (lbs/cu.ft)** : 65 - 68
- Solubility (at 20°C/68°F)** : 770g/l

## Section 10. Stability and reactivity

- Stability and reactivity** : Stable under recommended storage and handling conditions (see section 7).

## Section 11. Toxicological information

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Ammonium sulfate	LD50	2840 mg/kg	Oral	Rat
	LD50	640 mg/kg	Oral	Mouse
	LDLo	3500 mg/kg	Oral	Domestic Animals.

- Other toxic effects on humans** : Not considered to be toxic to humans.

## Section 12. Ecological information

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Ammonium sulfate	Oncorhynchus mykiss (LC50)	96 hour/hours	6.6 mg/l
	Pimephales promelas (LC50)	96 hour/hours	>20 mg/l
	Daphnia magna (LC50)	96 hour/hours	>20 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	36.7 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	39.2 mg/l

- Toxicity of the products of biodegradation** : The product itself and its products of degradation are not toxic.

### Section 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

### Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		-
<b>TDG Classification</b>	Not regulated.	-	-	-		-

### Section 15. Regulatory information

**HCS Classification** : Not regulated.  
**U.S. Federal regulations** : TSCA 8(b) inventory: Ammonium sulfate  
 SARA 302/304/311/312 extremely hazardous substances: No products were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: Ammonium sulfate  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification:  
 Ammonium sulfate: Immediate (acute) health hazard  
 Clean Water Act (CWA) 307: No products were found.  
 Clean Water Act (CWA) 311: No products were found.  
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
 Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
 Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

**SARA 313**

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
<b>Form R - Reporting requirements</b>	: Ammonium sulfate	7783-20-2	100
<b>Supplier notification</b>	: Ammonium sulfate	7783-20-2	100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

**State regulations** : Pennsylvania RTK: Ammonium sulfate: (environmental hazard, generic environmental hazard)  
 Massachusetts RTK: Ammonium sulfate  
 New Jersey: Ammonium sulfate

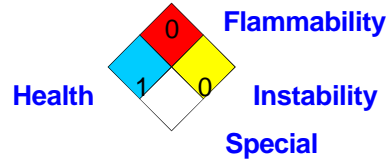
### Section 16. Other information

**Hazardous Material Information System (U.S.A.)** :

Health	1
Fire hazard	0
Reactivity	0

**Ammonium Sulfate 21-0-0**

**National Fire Protection Association (U.S.A.)** :



**Date of issue** : 2005-08-12.  
**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 contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.