



# Material Safety Data Sheet

Ammonium Nitrate - Fertilizer Grade

## Section 1. Chemical product and company identification

**Trade name** : Ammonium Nitrate - Fertilizer Grade

**Manufacturer** : Yara Canada Inc.  
1130 Sherbrooke St. W., Suite 1050  
Montréal, QC  
CANADA  
H3A 2M8

Tel: (514) 849-9222  
Fax: (514) 849-3362

**Validation date** : 2010-11-04.

**Print date** : 2010-11-04.

**Responsible name** : Christian Yelle.

**In case of emergency** : Business Hours 8:30 AM to 4:30 PM  
Christian Yelle  
Jean-Luc Hébert  
Yara Canada Inc.  
Contrecoeur, QC  
(450) 587-2047

24 Hour Emergency Service:  
Canutec  
613-996-6666

## Section 2. Hazards identification

**Physical state** : Solid. [Granular solid.]

**Emergency overview** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

### Potential acute health effects

**Eyes** : No known significant effects or critical hazards.

**Skin** : No known significant effects or critical hazards.

**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion** : No known significant effects or critical hazards.

### Potential chronic health effects

**Chronic effects** : 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.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Inhalation** : No specific data.

**Ingestion** : No specific data.

**Skin** : No specific data.

**Eyes** : No specific data.

**See toxicological information (Section 11)**

### Section 3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Ammonium Nitrate	6484-52-2	95.3
Magnesium Nitrate	10377-60-3	1.5

### Section 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

### Section 5. Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
  - Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Products of combustion** : These products are  
nitrogen oxides  
metal oxide/oxides
- Explosion hazards in the presence of various substances** : 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. It has high resistance to detonation. Heating under strong confinement can lead to explosive behaviour.
- Fire-fighting media and instructions** : Use water only in flooding quantities to fight the fire. Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
- 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.
- Remarks** : No additional remark.

### Section 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

#### Methods for cleaning up

- Small spill** : Material free from contamination can be used for its original purpose. Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

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- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## Section 7. Handling and storage

- Handling** : Store in tightly-closed container. Avoid contact with combustible materials.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles.

## Section 8. Exposure controls/personal protection

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure eyewash facilities are located close to the working environment.

### 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 or dusts. Recommended: Safety glasses. Use dust goggles if high dust concentration is generated.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
- Respiratory** : Use a properly fitted, air-purifying or air-fed 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 and ventilation is inadequate, use respirator that will protect against dust/mist.
- 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 hours (breakthrough time): butyl rubber , neoprene

### Personal protective equipment (Pictograms)



Consult local authorities for acceptable exposure limits.

## Section 9. Physical and chemical properties

- Physical state** : Solid. [Granular solid.]
- Color** : White. Grayish-white.
- Odor** : Odorless.
- pH** : >4,5 [Conc. (% w/w): 10%]
- Boiling/condensation point** : Decomposition temperature: >210°C (>410°F)
- Melting/freezing point** : 160 to 170°C (320 to 338°F)
- Density (g/cm<sup>3</sup>)** : 0,95 to 1,05 g/cm<sup>3</sup>
- VOC** : 0 % (w/w)
- Solubility** : Soluble in the following materials: cold water.

## Section 10. Stability and reactivity

- Stability and reactivity** : Stable under recommended storage and handling conditions (see section 7).
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials, combustible materials and organic materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- :
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Potential acute health effects

- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium Nitrate	LD50 Oral	Rat	2217 mg/kg	-
	TDL <sub>o</sub> Oral	Rat	10 mg/kg	-
Preparation	LD50 Oral	Rat	>2000 mg/kg	-

## Section 12. Ecological information

- Environmental effects** : Used in excess quantities the product can cause eutrophication in water.

### Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Preparation	- Acute LC50	>100 mg/L	Fish	96 hours

- Conclusion/Summary** : The product is not expected to harm the environment when used properly according to directions.

### Biodegradability

- Conclusion/Summary** : Most inorganic compounds are not biodegradable. The product does not show any bioaccumulation phenomena.




## Section 13. Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Consult your local or regional authorities.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
<b>DOT Classification</b>	UN2067	AMMONIUM NITRATE BASED FERTILIZER	5.1	III		-
<b>TDG Classification</b>	UN2067	AMMONIUM NITRATE BASED FERTILIZER	5.1	III		-
<b>Mexico Classification</b>	UN2067	AMMONIUM NITRATE BASED FERTILIZER	5.1	III		-

## Section 15. Regulatory information

- WHMIS (Canada)** : Class C: Oxidizing material.
- Canadian lists** : **CEPA Toxic substances:** None of the components are listed.  
**Canadian ARET:** None of the components are listed.  
**Canadian NPRI:** The following components are listed: Ammonia (total); Manganese  
**Alberta Designated Substances:** None of the components are listed.  
**Ontario Designated Substances:** None of the components are listed.  
**Quebec Designated Substances:** None of the components are listed.
- Canada inventory** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## Section 16. Other information

- References** : Regulation (EC) No 1272/2008 Annex VI  
National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda  
Registry of Toxic Effects of Chemical Substances  
Atrion International Inc. 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada

- Date of issue** : 2010-11-04.
- 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 Material 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 Material Safety Data Sheet.