

# sherritt

35185AK 30100K  
**BIN#445** MATERIAL SAFETY DATA SHEET

0342157

Date Prepared: May 25, 1994  
Supersedes: April 19, 1994  
M.S.D.S. Number: 09107  
Reference: CAS

### 1. PRODUCT INFORMATION

NAME: 34.5-0-0 Ammonium Nitrate  
SYNONYMS: FGAN  
DESCRIPTION AND APPLICATION: A crystalline green granule or prilled fertilizer.  
CAS#: 6484-52-2

#### REGULATORY CLASSIFICATION:

WHMIS: Class C - Oxidizing Material  
Class D - Division 2, Subdivision B; Toxic material

CEPA: All components of this product are either on the Domestic Substances List or exempt.

#### TDG Information (Rail Only):

TDG Shipping Name: Ammonium nitrate fertilizers  
Primary TDG: 5.1 P.I.N: UN1942  
Secondary TDG: Packing Group: III  
Tertiary TDG:

#### TDG Information (Road Only, Bulk Transport):

TDG Shipping Name: Ammonium nitrate fertilizers  
Primary TDG: 5.1 P.I.N: UN1942  
Secondary TDG: Packing Group: III  
Tertiary TDG:

#### TDG Information (Retail Product Delivery):

Exempt under TDGR Sec 2.32.4 (2)(a) (b) (c) and (d).

Retail deliveries of less than 13.6 tonnes of ammonium nitrate fertilizers (PIN numbers: 1942, 2067, 2069, 2069, 2070, 2071, or 2072) are exempt from Sections IV, V, and 9.2 to 9.7 of the TDGR if carrying a record sheet identifying the Shipping Name, Pin number, and quantity of fertilizer transported.

#### EMERGENCY TELEPHONE NUMBERS:

Name of MFG/SUPPLIER: SHERRITT INC.  
ADDRESS & PHONE NUMBER: Box 28000  
Edmonton, Alberta  
T5J 4R4

HEALTH: (403) 998-6020  
TRANSPORTATION: (403) 998-6020

### 2. REGULATED COMPONENTS

The following components are defined in accordance with subparagraph 13 (a) (i) to (iv) or paragraph 14(a) of the hazardous product act.

Component	%	CAS #	LD50:
Ammonium Nitrate	100	15978-77-5	4.8 g/kg, ing, rat > 3.0, g/kg, skn. rbt

### 3. TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid  
SPECIFIC GRAVITY: 1.73 @ 15 deg C  
BULK DENSITY: 880 kg/m<sup>3</sup>  
ODOUR/APPEARANCE: Odourless green granules or prills.  
ODOUR THRESHOLD: Not Applicable

VAPOR PRESSURE: Not Applicable  
VAPOR DENSITY: Not Applicable  
EVAPORATION RATE: Not Applicable  
BOILING POINT: Not Applicable, Decomposes.  
FREEZING/MELTING POINT: 197 deg C  
VISCOSITY: Not Applicable  
PH: pH of 5.9 for a 10 wt % solution  
SOLUBILITY: Soluble  
CO-EFFICIENT OF WATER/OIL DISTRIBUTION: Not Available  
PERCENT VOLATILE: 0 %  
MOLECULAR FORMULA: NH<sub>4</sub>NO<sub>3</sub>  
MOLECULAR WEIGHT: 80.04

### 4. HEALTH HAZARD INFORMATION

#### NATURE OF HAZARD:

INHALATION: Injury is unlikely. Dusts may be irritating to the nose, throat, and lungs.

EYE CONTACT: Irritating, but will not injure eye tissue.

SKIN CONTACT: Irritating on prolonged or repeated exposure.

INGESTION: May interfere with oxygen carrying capacity of the blood. (Methemoglobinemia).

TOXICITY DATA: Not available for product

#### OCCUPATIONAL EXPOSURE LIMITS ACGIH RECOMMENDATION:

For Nuisance Dusts: 10 mg/m<sup>3</sup>,  
Local regulated limits may vary.

### 5. FIRST AID MEASURES

INHALATION: In emergency situations use proper respiratory protection to remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Administer oxygen if available. Keep at rest. Get prompt medical attention.

EYE CONTACT: Immediately flush eyes with large amounts of water for at least 15 minutes. Get prompt medical attention.

SKIN CONTACT: Wash with soap and water. Remove severely contaminated clothing and laundry before reuse. If irritation persists, seek medical attention.

INGESTION: If swallowed, induce vomiting if conscious. Do not induce vomiting in an unconscious person. Administer oxygen if available. Administer artificial respiration if breathing has stopped. Keep at rest. Get prompt medical attention.

### 6. PREVENTIVE AND CORRECTIVE MEASURES

#### PERSONAL PROTECTION:

The selection of personal protective equipment varies, depending upon conditions of use.

Please turn over

I.C.P.  
35-125 MK 30-100K



MATERIAL SAFETY DATA SHEET

Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeved clothing, coveralls, leather gloves, and safety glasses with side shields.

Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved dust respirators may be necessary to prevent overexposure by inhalation.

ENGINEERING CONTROL:

The use of local exhaust or mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended occupational exposure limits.

HANDLING, STORAGE AND SHIPPING:

Empty containers may contain product residue. Do not reuse empty containers without commercial cleaning or reconditioning. Keep containers closed. Store in a cool, well ventilated place away from incompatible materials.

SPILL CONTROL AND DISPOSAL:

Consult an expert on disposal of recovered material. Ensure disposal is in compliance with government requirements and ensure conformity to local regulations. Notify appropriate authorities immediately. Take all action necessary to prevent and remedy the adverse effects of a spill.

LAND SPILLS:

Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses, wells, or low areas. Recover and place material in suitable containers for recycle or disposal.

WATER SPILLS:

Keep public and shipping traffic away. Prevent additional discharge of material, if possible to do so without hazard. Reclaiming material may not be viable. Will dissolve and disperse in water.

Product will promote algae growth and may degrade water quality and taste. Notify downstream water users. Nitrate in potable drinking water should be maintained below 10 mg/l.

7. FIRE & EXPLOSION HAZARD

Flashpoint and Method: Non-flammable solid.

Autoignition: Not Applicable

Flammable Limits (% volume): LEL: none  
UEL: none

GENERAL HAZARDS:

Oxidizer: Material is an oxidizer which may readily react with other materials, especially upon heating. In the presence of a detonation source, material can explode when subject to sudden shock, pressure, or high temperature.

Decomposes: Flammable/toxic gases will form at elevated temperatures (thermal decomposition).

AVOID temperatures above 210 deg C (410 deg F) which may cause thermal decomposition or explosion.

FIREFIGHTING:

If material is involved in a fire, use water spray to cool fire exposed surfaces and to protect personnel.

Shut off fuel to fire.  
Respiratory and eye protection required for fire fighting personnel.

HAZARDOUS COMBUSTION PRODUCTS:

Material will not burn, but thermal decomposition may result in flammable/toxic gases being formed. See Hazardous Decomposition Section.

B. REACTIVITY DATA

This material is stable.  
Hazardous Polymerization will not occur.

INCOMPATIBLE MATERIALS & CONDITIONS TO AVOID:

Reducing agents, acids, organic materials, sulphur, copper, chromium, zinc metal, ammonium sulphate, chlorides, chlorates and perchlorates.

Avoid contact with moisture. Slow hydrolysis will produce corrosive acids.

Industry studies have proposed the following rules for blends of ammonium nitrate with phosphate and potassium containing fertilizers:

- a) Ammonium nitrate fertilizers are reported not to detonate unless the fertilizer contains at least 70% ammonium nitrate, unless ammonium sulphate is present in the blend. Blended ammonium nitrate ammonium sulphate fertilizers may detonate with as little as 45% ammonium nitrate present.
- b) It has been reported that it is desirable to keep the ammonium to nitrate ratio above 1.5 in fertilizer blends in order to minimize toxic gas release during "cigar burn" fires.
- c) "Cigar burn" is considered to be a hazard primarily when the ammonium nitrate content of a blend is between 20-40%.

Shipping regulations are restrictive in various parts of the world. Consult local authorities to ensure conformity.

HAZARDOUS DECOMPOSITION:

Ammonia (NH3) (Toxic and Flammable) and oxides of nitrogen (Toxic).

8. NOTES

10. PREPARATION

Prepared By: Environment, Safety and Health Department  
(403) 930-8134

CAUTION:

The buyer assumes all risk in connection with the use of this material. Sherritt Inc. assumes no responsibility or liability in connection with the information supplied on this sheet or for any damages or injury caused by the material if reasonable safety procedures are not followed as stipulated. Sherritt Inc. assumes no responsibility for injury or damage caused by abnormal use of the material even if reasonable safety procedures are followed. The information contained herein is developed from what are believed to be accurate and reliable sources and are based on the the best opinions and authoritative facts available on the date of preparation.

Please Turn over