





	DOT / TDG Pictograms	WHMIS Classification	
Health  Flammability Reactivity Specific Hazard			

Section I. Chemical Product and Company Identification

PRODUCT NAME/ TRADE NAME	Agri-Mag		
SYNONYM	3-0-12 Granulated fertilizer with added sulfur and magnesium micronutrients	MSDS NUMBER:	14114
CHEMICAL NAME	Not applicable; a complex co-granulated mixture of essential plant nutrients.	REVISION NUMBER	1.1
CHEMICAL FAMILY	Not applicable. A mineral salt mixture.	MSDS prepared by the Environment, Health and Safety Department on:	February 9, 2004
CHEMICAL FORMULA	Not applicable.	24 HR EMERGENCY TELEPHONE NUMBER: Transportation: 1-800-792-8311 Medical: 1-888-670-8123	
MATERIAL USES	Agricultural industry: Fertilizer.		
MANUFACTURER	SUPPLIER		
Agrium North American Wholesale 13131 Lake Fraser Drive, S.E. Calgary, Alberta, Canada, T2J 7E8 Agrium U.S. Inc. Suite 1700, 4582 South Ulster St. Denver, Colorado, U.S.A., 80237	Agrium North American Wholesale 13131 Lake Fraser Drive, S.E. Calgary, Alberta, Canada, T2J 7E8 Agrium U.S. Inc. Suite 1700, 4582 South Ulster St. Denver, Colorado, U.S.A., 80237		

Section II. Hazardous Ingredients

NAME	CAS #	Exposure Limits (ACGIH)						% by Weight
		TLV-TWA mg/m ³	TLV-TWA ppm	STEL mg/m ³	STEL ppm	CEIL mg/m ³	CEIL ppm	
Magnesium oxide	1309-48-4	10						12 as Mg
TOXICOLOGICAL DATA ON INGREDIENTS	Magnesium oxide - RTECS: Human acute TCLo: 400 mg/m ³ , body temperature increase							

Section III. Hazards Identification.

POTENTIAL ACUTE HEALTH EFFECTS	This product may irritate the eyes, nasal passages and skin upon prolonged or repeated contact. Over-exposure by inhalation may cause respiratory tract irritation. Over-exposure to magnesium containing dusts and fumes may result in "metal fume fever", a flue-like condition with fever, headache, nausea, and weakness. Symptoms may begin within a few hours of exposure, and last 1-2 days with no permanent effects.
POTENTIAL CHRONIC HEALTH EFFECTS	<p>CARCINOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA. MUTAGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA. TERATOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, NTP, OSHA.</p> <p>No chronic effects are known from exposure to this material.</p>

Continued on Next Page

Section IV. First Aid Measures

EYE CONTACT	May cause eye irritation. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Obtain medical attention if irritation persists.
MINOR SKIN CONTACT	May cause skin irritation. Wash contaminated skin with soap and water. Cover dry or irritated skin with a good quality skin lotion. If irritation persists, seek medical attention.
EXTENSIVE SKIN CONTACT	No additional information.
MINOR INHALATION	Inhalation of dust may produce irritation, burning, sneezing and coughing. Loosen tight clothing. Allow to rest in a well ventilated area. Obtain medical attention if irritation persists.
SEVERE INHALATION	In emergency situations use proper respiratory protection to evacuate affected individuals to a safe area as soon as possible. Loosen tight clothing around the person's neck and waist. Oxygen may be administered if breathing is difficult. If the person is not breathing, perform artificial respiration. Obtain immediate medical attention.
SLIGHT INGESTION	May be irritating to the mouth, throat and intestinal tract resulting in nausea, vomiting, and diarrhea. Do not induce vomiting. If vomiting does occur, lower the person's head and to prevent choking. Have affected person drink several glasses of water to assist in purging system. Obtain medical attention if feeling ill.
EXTENSIVE INGESTION	No additional information.

Section V. Fire and Explosion Data

THE PRODUCT IS	Non-flammable.
AUTO-IGNITION TEMPERATURE	Not applicable.
FLASH POINT	Not applicable.
FLAMMABILITY LIMITS	Not applicable.
PRODUCTS OF COMBUSTION	Material will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and combustible gases: ammonia, nitrogen oxides and sulfur oxides.
FIRE HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	Not applicable.
EXPLOSION HAZARD IN THE PRESENCE OF VARIOUS SUBSTANCES	Not considered to be an explosive risk.
FIRE FIGHTING MEDIA AND INSTRUCTIONS	Material will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and combustible gases. Use extinguishing media suitable for surrounding materials.
SPECIAL REMARKS ON FIRE HAZARDS	Non combustible. Flammable/toxic gases will form at elevated temperatures (>190 °C) by thermal decomposition (ammonia, sulfur oxides, nitrogen oxides). A self contained breathing apparatus should be used to avoid inhalation of toxic fumes.
SPECIAL REMARKS ON EXPLOSION HAZARDS	No additional remark.

Section VI. Accidental Release Measures

SMALL SPILL	Use appropriate tools to put the spilled solid in a suitable container for intended use or disposal.
LARGE SPILL	

Continued on Next Page

Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses, wells, etc. Product will promote algae growth which may degrade water quality and taste. Notify downstream water users. Sulfate in potable drinking water should be maintained below 250 mg/L (U.S.) or 500 mg/L (Canada). Will dissolve and disperse in water. Reclaiming material may not be viable. Recover and place material in suitable containers for recycle, reuse, or disposal. Ensure disposal complies with government requirements and local regulations.

Section VII. Handling and Storage

PRECAUTIONS Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. Do not breathe dust. Keep away from food, drink and animal feed. Avoid contact with incompatible substances. Keep out of reach of children.

STORAGE Store in a dry, cool and well ventilated area.

Section VIII. 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, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTION The selection of personal protective equipment varies, depending upon conditions of use. Wear appropriate respiratory protection for dust/mist when ventilation is inadequate. A filtering facepiece dust mask is recommended for most applications if respiratory protection is needed. Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeved clothing, coveralls, chemical resistant gloves, and safety glasses with side shields.

PERSONAL PROTECTION IN CASE OF LARGE RELEASE No additional information.

EXPOSURE LIMITS ACGIH TLV-TWA: 10 mg/m³ as inhalable dust for magnesium oxide
 OSHA PEL: 15 mg/m³ for magnesium oxide fume as total particulate

 OSHA PEL: 15 mg/m³ as total dust and 5 mg/m³ for the respirable fraction for Particulates Not Otherwise Regulated (nuisance particulates).

 Federal, State or Provincial exposure limits may vary by jurisdiction. Consult local authorities for acceptable exposure limits in your area.

Section IX. Physical and Chemical Properties

PHYSICAL STATE AND APPEARANCE	Granular solid.		
MOLECULAR WEIGHT	Not applicable.	COLOR	Grey.
pH (10% SOLN/WATER)	Not available	ODOR	Odorless.
BOILING POINT	Decomposes.	ODOR THRESHOLD	Not available.
MELTING POINT	Not available	TASTE	Acrid.
CRITICAL TEMPERATURE	Not available.	VOLATILITY	Not applicable.
SPECIFIC GRAVITY g/cc	Not available	SOLUBILITY	Soluble in cold or hot water.
BULK DENSITY kg/m³ ; lbs/ft³	Not available	DISPERSION PROPERTIES	See solubility in water.
VAPOR PRESSURE	Not applicable.	WATER/OIL DIST. COEFF.	Not available.
VAPOR DENSITY	Not applicable.		

Section X. Stability and Reactivity Data

STABILITY	The product is stable.
INSTABILITY TEMPERATURE	Not available.
CONDITIONS OF INSTABILITY	No additional remark.
INCOMPATABILITY WITH VARIOUS SUBSTANCES	Slightly reactive oxidizing agents. Very slightly reactive with metals, alkalis, moisture.
CORROSIVITY	Mineral salts. Slightly corrosive to steel, aluminum, zinc and copper. Non-corrosive to stainless steel (304 or 316).
SPECIAL REMARKS ON REACTIVITY	Hygroscopic, will absorb moisture and cake or harden.
SPECIAL REMARKS ON CORROSIVITY	Contact your sales representative or a metallurgical specialist to ensure compatibility with system equipment.

Section XI. Toxicological Information

SIGNIFICANT ROUTES OF EXPOSURE	Ingestion. Inhalation.
TOXICITY TO ANIMALS	See Section II.
SPECIAL REMARKS ON TOXICITY TO ANIMALS	May be harmful to livestock and wildlife if ingested. Clean up all spilled material, especially where bulk fertilizer loading of equipment occurs to prevent animal exposure.
OTHER EFFECTS ON HUMANS	No additional information.
SPECIAL REMARKS ON CHRONIC EFFECTS ON HUMANS	No additional remark.
SPECIAL REMARKS ON OTHER EFFECTS ON HUMANS	No additional remark.

Section XII. Ecological Information

ECOTOXICITY	<p>May be harmful to fish, livestock, and wildlife. Dissolved mineral salts may cause irritation of the digestive tract. Non-persistent. Non-cumulative when applied using normal agricultural practices. The product itself and its products of degradation are not harmful under normal conditions of careful and responsible use.</p> <p>Aquatic/Marine Toxicity: Will release ammonium ions. Ammonia is a toxic hazard to fish. Avoid spills or release to watercourses. Highly soluble. Will disperse with current. Release to watercourses may cause effects down stream from the point of release. U.S. D.O.T.: This material is NOT listed as a Marine pollutant.</p>
BOD and COD	Not available.
PRODUCTS OF DEGRADATION	Nitrogen oxides (NO, NO ₂ ...), Sulfur oxides (SO ₂ , SO ₃ ...)
TOXICITY OF THE PRODUCTS OF DEGRADATION	The product itself and its products of degradation are not harmful under normal conditions of use. Avoid spills or releases to watercourses.
SPECIAL REMARKS ON THE PRODUCTS OF DEGRADATION	Product will promote algae growth which may degrade water quality and taste. Will dissolve and disperse in water. Reclaiming material may not be viable.

Section XIII. Disposal Considerations

WASTE DISPOSAL OR RECYCLING Recover and place material in a suitable container for intended use or disposal. Ensure disposal complies with government requirements and local regulations.

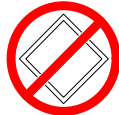
Section XIV. Transport Information

DOT / TDG CLASSIFICATION Not controlled under TDG (Canada) or D.O.T. (U.S.A.)

PIN and Shipping Name Not applicable.

SPECIAL PROVISIONS FOR TRANSPORT Not applicable.

DOT (U.S.A) (Pictograms)



Section XV. Other Regulatory Information and Pictograms

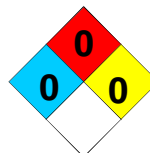
OTHER REGULATIONS CALIFORNIA PROPOSITION 65: This product contains no chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
 This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:
 Aqueous ammonia from water dissociable ammonium ions, CAS# 7783-20-2: 2.4 wt%; 10% of total aqueous ammonia is reportable under this listing (see EPA doc 745-R-95-012)
 TSCA (Toxic Substance Control Act): The ingredients in this product are listed on the TSCA Inventory.
 CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA.

OTHER CLASSIFICATIONS	HCS (U.S.A.)	HCS CLASS: Irritating substance.
	DSCL (EEC)	20- Harmful by inhalation.

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

Hazards presented under acute emergency conditions only:

Health



Fire Hazard Reactivity

Specific Hazard

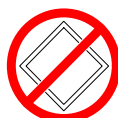
TDG (Pictograms - Canada)



DSCL (Europe) (Pictograms)

Not Available
 No Disponible
 Pas Disponible

ADR (Europe) (Pictograms)



Section XVI. Other Information**REFERENCES**

-Transportation of Dangerous Goods Act and Clear Language Regulations, current revision.
 -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List".
 -Domestic Substances List, Canadian Environmental Protection Act.
 -29 CFR Part 1910
 -33 CFR Parts 151, 153, 154, 156
 -40 CFR Parts 1-799
 -46 CFR Part 153
 -49 CFR Parts 1-199
 -American Conference of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances, 2003.
 -NFPA 704, National Fire Codes Online, National Fire Protection Association, current edition at time of MSDS preparation.
 -Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers
 -TOMES® System: Heitland G & Hurlbut KM (Eds) (electronic version): MICROMEDEX, Greenwood Village, Colorado, USA. Available at: <http://csi.micromedex.com> (2003). The TOMES® System includes MEDITEXT® Medical Management; HAZARDTEXT® Hazard Management; INFOTEXT® Documents; ERG2000 Emergency Response Guidebook Documents; REPROTEXT®: Heitland G & Hurlbut KM (Eds); CHRIS Hazardous Chemical Data: U.S. Department of Transportation, U.S. Coast Guard, Washington, D.C. (2003); HSDB: Hazardous Substances Data Bank. National Library of Medicine, Bethesda, Maryland (2003); IRIS: Integrated Risk Information System. U.S. Environmental Protection Agency, Washington, D.C. (2003); NIOSH: Pocket Guide to Chemical Hazards. National Institute for Occupational Safety and Health, Cincinnati, Ohio (2003); OHM/TADS: Oil and Hazardous Materials Technical Assistance Data System. U.S. Environmental Protection Agency, Washington, D.C. (2003); REPROTOX®: Scialli A.R. Georgetown University Medical Center and Reproductive Toxicology Center, Columbia Hospital for Women Medical Center, Washington, D.C. (2003); RTECS®: Registry of Toxic Effects of Chemical Substances. National Institute for Occupational Safety and Health, Cincinnati, Ohio (2003); and SHEPARDS: Shepard T.H.: Shepard's Catalog of Teratogenic Agents (2003).
 -The Fertilizer Institute Product Testing Program Results, March 2003

OTHER SPECIAL CONSIDERATIONS

No additional information.

FOR FURTHER SAFETY, HEALTH, OR ENVIRONMENTAL INFORMATION ON THIS PRODUCT, CONTACT

AGRIUM
 Environment, Health and Safety Department
 Telephone (403) 225-7380 or Fax (403) 225-7608

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