



ACTIVE
AgriScience

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 #209 - 31136 Peardonville Rd,
 Abbotsford, BC,
 V2T 6K2, Canada
activeagriscience.com

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER		ARM U™ 18% NBPT					
PRODUCT USE		Liquid nitrogen stabilizer for urea fertilizers		USE RESTRICTIONS		For professional use only. Use only as labeled	
MANUFACTURERS NAME		Active AgriScience Inc.		DISTRIBUTORS NAME			
STREET ADDRESS		209-31136 Peardonville Rd		STREET ADDRESS			
CITY	Abbotsford	PROVINCE	British Columbia, Canada	CITY		COUNTRY	
POSTAL CODE	V2T 6K2	EMERGENCY TELEPHONE	1-604-864-0156	POSTAL CODE		EMERGENCY TELEPHONE	
DATE	December 16, 2016	PREPARED BY	Active AgriScience Inc.	PHONE NUMBER			

SECTION 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

HPR (WHMIS 2015)	Eye Damage / Irritation: Category 1 Skin Corrosion / Irritation: Category 2 Specific Target Organ Toxicity (STOT); Single exposure: Category 3 (respiratory irritation) Specific Target Organ Toxicity (STOT); Single exposure: Category 2 (kidneys) Reproductive toxicity: Category 1B
OSHA Hazard Communication Standard (29 CFR 1910.1200)	Eye Damage / Irritation: Category 1 Skin Irritation: Category 2 Specific Target Organ Toxicity (STOT); Single exposure: Category 3 (respiratory irritation) Specific Target Organ Toxicity (STOT); Single exposure: Category 2 (kidneys) Reproductive toxicity: Category 1B



DANGER

HAZARD STATEMENTS: Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May damage fertility or the unborn child.

PRECAUTIONARY STATEMENTS: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.

FIRST AID: IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. **IF INHALED:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical advice/attention

STORAGE: Store locked up. Store in a well-ventilated place. Keep container tightly closed

DISPOSAL: dispose of this product and its container in accordance with Federal, state, provincial, and local regulations



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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS#	CONCENTRATION
N-(n-Butyl)-thiophosphoric triamide	94317-64-3	15-25%
propane-1,2-diol	57-55-6	30-50%
N-methyl-2-pyrrolidone	872-50-4	30-70%
1,2-Ethanediol	107-21-1	30-50%

SECTION 4 – FIRST AID MEASURES

EYE CONTACT	Immediately flush eyes with a large gentle stream of water for 15 minutes while holding the upper and lower eyelids open. Seek immediate medical attention
SKIN CONTACT	Immediately flush skin with plenty of water. Remove contaminated clothing and wash before reuse. Seek medical attention if irritation persists.
INHALATION	Move victim to fresh air. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.
INGESTION	Rinse mouth. Never give anything by mouth to an unconscious person. DO NOT induce vomiting without physician's direction. If vomiting occurs naturally, have victim lean forward with head down to avoid breathing in vomit, rinse mouth. Seek medical attention if you feel unwell.
Most Important Symptoms, both acute & delayed	Risk of serious damage to the eyes. Causes skin and respiratory irritation
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Effects may be delayed.

SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABLE	Product will not burn or support combustion
MEANS OF EXTINCTION	Use extinguishing methods appropriate for the surrounding fire. Do not use a water jet as this may spread the fire.



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FLASHPOINT & METHOD	Not applicable	UPPER FLAMMABLE LIMIT	Not applicable	LOWER FLAMMABILITY LIMIT	Not applicable
AUTO IGNITION TEMPERATURE	Not applicable	SENSITIVITY TO IMPACT	Not available	SENSITIVITY TO STATIC DISCHARGE	Not available
HAZARDOUS COMBUSTION PRODUCTS	Toxic, irritating and/ or corrosive gases may be released during a fire				

SECTION 6 – ACCIDENTAL RELEASE MEASURES

LEAK & SPILL PROCEDURES	<p>Wear personal protective equipment outlined in SECTION 8. Ventilate area of spill. Keep out of low areas. Remove sources of ignition.</p> <p>Large Spills: Dike spilled material to contain spill if necessary. Adsorb with inert material (clay cat litter, dry sand, and earth. Place recovered material into clean, dry containers for disposal. Flush area with water, following recovery. Do not flush rinse water to drain or the environment</p>
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SECTION 7 – HANDLING AND STORAGE

HANDLING	Do not handle until all safety precautions have been read and understood. Do not get in eyes, or skin. Do not breathe mist/spray. Wear protective gloves, and eye protection – See SECTION 8 Wash hands before eating, drinking, smoking and when leaving work
STORAGE	Store in a cool, dry, well ventilated area away from food or feed storage
INCOMPATIBLE MATERIALS	Not available

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

EXPOSURE LIMITS	Canada OEL: N-methyl-2-pyrrolidone: TWA 400 mg/m ³ OSHA: Not available
ENGINEERING CONTROLS	Ensure adequate ventilation when handling or applying this product. Follow all label instructions. Follow manufacturers' instructions for cleaning / maintaining personal protective equipment. If mists are present and ventilation is absent or poor, use an air purifying respirator. Provide eye wash station in area where product is handled.

PERSONAL PROTECTIVE EQUIPMENT

Skin	Wear neoprene gloves. CHANGE GLOVES FREQUENTLY. Chemical resistant coveralls when handling or applying this product are recommended
Eyes	Wear chemical goggles when handling or applying product



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Respirator	Use an approved air purifying respirator if mists are present and ventilation is absent or poor
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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid	APPEARANCE	Not available	COLOUR	Orange
VISCOSITY	Not available	BOILING POINT	Not available	FREEZING POINT	Not available
EVAPORATION RATE	Not available	SPECIFIC GRAVITY	1.08-1.1 g/cm ³	ODOUR	Not available
PH	6.5 – 7.0	SOLUBILITY IN WATER	Miscible in water	ODOUR THRESHHOLD	Not available

SECTION 10 – STABILITY AND REACTIVITY

CHEMICAL STABILITY	Stable under normal conditions of use and storage
INCOMPATABILITY WITH OTHER SUBSTANCES	Acids, strong reducing agents, strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS	Toxic and/or irritating gases may be released during a fire: carbon oxides, nitrogen oxides, Sulphur oxides

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY	Mixture is not acutely toxic
CHRONIC TOXICITY	Not available
EYE / SKIN IRRITATION	Causes serious eye damage and skin irritation. May be absorbed through skin
SENSITIZATION	Not available
CARCINOGENICITY	No component of this product present at levels ≥ 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC, or ACGIH
REPRODUCTIVE TOXICITY	May damage fertility or unborn child
MUTAGENICITY	Not available
Possible delayed effects	N-methyl-2-pyrrolidone: effects may be delayed. Animal studies show adverse effects to liver and kidneys.

SECTION 12 – ECOLOGICAL INFORMATION



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ECOTOXICITY	Not available
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SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL	Dispose of this product and its container in accordance with Federal, State, Provincial and local regulations
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SECTION 14 – TRANSPORT INFORMATION

SHIPPING	TDG not a dangerous good for transport DOT: not a dangerous good for transport
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SECTION 15 – REGULATORY INFORMATION

This SDS is prepared to comply with the Global Harmonized System of Chemical Classification and Labeling (GHS) and conforms to the requirements of HPR (WHMIS 2015) & OSHA Hazard Communication Standard (29 CFR 1910.1200).

US federal regulations: All components of this product are listed on the U.S. EPA TSCA Inventory.

N-(n-butyl)-thiophosphoric triamide (NBPT) is subject to a Significant New Use Rule (SNUR) codified in 40 CFR 721.6090

Canadian federal regulations: All components if this product listed on Canada's DSL Inventory.

SECTION 16 – OTHER INFORMATION

To the best of our knowledge, the information contained herein is current and correct as of the date of this SDS, however, the information and recommendations are presented without warranty, representation or license of any kind, with respect to their accuracy, or completeness, and the seller, supplier and manufacturer (Supplier) of this material or their affiliates, disclaim all liability for reliance on such information and recommendations.

Final determination of the suitability of any material is the sole responsibility of the buyer or the user (recipient). All materials may present unknown hazards and should be used with caution. The recipient assumes all risk in connection with the use of this material and assumes all responsibility for ensuring the material is used in a safe manner in compliance with applicable environmental, and health and safety laws.

The supplier does not warrant the merchantability of this material or the fitness of the material for any particular use and assumes no responsibility for injury or damage caused directly or indirectly by the use of this material.