



ACTIVE[™]
AgriScience

1-639-398-0485
3422 Millar Ave,
Saskatoon, SK,
S7K 5Y7, Canada
activeagriscience.com

SAFETY DATA SHEET

ARM U 18% NBPT

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
PRODUCT IDENTIFIER	ARM U 18% NBPT
PRODUCT USE	Liquid nitrogen stabilizer for urea fertilizers
MANUFACTURERS NAME	Active AgriScience Inc.
STREET ADDRESS	3422 Millar Avenue
CITY	Saskatoon
POSTAL CODE	S7K 5Y7
DATE	July 14, 2021
PROVINCE	Saskatchewan, Canada
EMERGENCY TELEPHONE	+1 877-715-9305
PREPARED BY	Active AgriScience Inc.
USE RESTRICTIONS	For professional use only. Use only as labeled.
DISTRIBUTORS NAME	
STREET ADDRESS	
CITY	
POSTAL CODE	
COUNTRY	
EMERGENCY TELEPHONE	



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SECTION 2 – HAZARDS IDENTIFICATION

GHS CLASSIFICATION

<p>HPR (WHMIS 2015)</p>	<p>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</p>
<p>OSHA Hazard Communication Standard (29 CFR 1910.1200)</p>	<p>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</p>
<div style="text-align: center;">    <p>ANGER</p> </div>	<p>HAZARD STATEMENTS: CAUSES SERIOUS EYE DAMAGE. CAUSES SKIN IRRITATION. 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 chemical resistant gloves, coveralls, goggles and face protection. Change gloves frequently. Wear air supplied respirator where airborne concentrations exceed recommended exposure limits or are unknown. Do not eat, drink or smoke when using this product. Wash up thoroughly before eating, drinking, smoking and leaving work. Keep livestock off treated areas until after 14 days or 2.5 cm of rainfall has accumulated. FIRST AID: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE / doctor. IF ON SKIN: Immediately take off all contaminated clothing. Rinse skin with water (or shower). Wash contaminated clothing before reuse. Seek immediate medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE / doctor. IF IN EYES: Immediately flush eyes with a gentle stream of water for 15 minutes while holding the upper and lower eyelids open. Remove contact lenses, if present and easy to do. Seek immediate medical attention. STORAGE: KEEP OUT OF REACH OF CHILDREN. Store locked up in a cool, dry, well ventilated area away from food or feed storage. DO NOT FREEZE. DISPOSAL: Dispose of this product and its container in accordance with Federal, Provincial, and Local regulations.</p>



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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS		
INGREDIENTS	CAS#	CONCENTRATION
N-(n-Butyl)-thiophosphoric triamide	94317-64-3	15-25%
Propylene glycol	57-55-6	30-50%
N-methyl-2-pyrrolidone	872-50-4	30-70%
Ethylene glycol	107-21-1	30-50%

SECTION 4 – FIRST AID MEASURES	
EYE CONTACT	Immediately flush eyes with a gentle stream of water for 15 minutes while holding the upper and lower eyelids open. Remove contact lenses, if present and easy to do. Seek immediate medical attention.
SKIN CONTACT	Immediately take off all contaminated clothing. Rinse skin with water (or shower). Wash contaminated clothing before reuse. Seek immediate medical attention.
INHALATION	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTRE / doctor.
INGESTION	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTRE/doctor.
Most Important Symptoms, both acute & delayed	Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. May damage fertility or the unborn child.



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SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABLE	Product will not burn or support combustion.
MEANS OF EXTINCTION	Use extinguishing methods appropriate for the surrounding fire.
FLASHPOINT & METHOD	NAP
UPPER FLAMMABLE LIMIT	NAP
LOWER FLAMMABILITY LIMIT	NAP
AUTO IGNITION TEMPERATURE	NAP
SENSITIVITY TO IMPACT	NAP
SENSITIVITY TO STATIC DISCHARGE	NAP
HAZARDOUS COMBUSTION PRODUCTS	Toxic irritating and/or corrosive gases may be released during a fire: carbon oxides, nitrogen oxides, sulphur oxides.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

LEAK & SPILL PROCEDURES	Wear personal protective equipment outlined in SECTION 8. Ventilate area of spill. Avoid breathing mists. Contain spill then adsorb with inert material and place into suitable clean containers for later disposal. Do not release into drains or the environment.
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SECTION 7 – HANDLING AND STORAGE

HANDLING	Do not handle until all safety precautions have been read and understood. Do not breathe mist/spray. Do not get in eyes, or skin. Wear personal protective equipment outlined in SECTION 8. Wash hands and other exposed areas before eating, drinking, smoking and when leaving work.
STORAGE	KEEP OUT OF REACH OF CHILDREN. Store locked up in a cool, dry, well ventilated area away from food or feed storage. DO NOT FREEZE.



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SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION	
EXPOSURE LIMITS	Canada OEL: N-methyl-2-pyrrolidone: TWA 400 mg/m ³ OSHA: Not available
ENGINEERING CONTROLS	Follow all label instructions. Follow manufacturers' instructions for cleaning / maintaining personal protective equipment.
PERSONAL PROTECTIVE EQUIPMENT	
Skin	Wear chemical resistant gloves, coveralls and face protection when handling or applying this product. Change gloves frequently.
Eyes	Wear chemical resistant goggles when handling or applying this product.
Respirator	Wear air supplied respirator where airborne concentrations exceed recommended exposure limits or are unknown.



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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES	
PHYSICAL STATE	Liquid
COLOUR	Blue
BOILING POINT	NAV
EVAPORATION RATE	NAV
ODOUR	NAV
SOLUBILITY IN WATER	Miscible in water
APPEARANCE	Blue liquid
VISCOSITY	NAV
FREEZING POINT	NAV
SPECIFIC GRAVITY	1.08-1.1 g/cm ³
pH	6.2 – 7.0
ODOUR THRESHHOLD	NAV

SECTION 10 – STABILITY AND REACTIVITY	
CHEMICAL STABILITY	Stable under normal conditions of use and storage.
INCOMPATIBLE WITH OTHER SUBSTANCES	Acids, strong reducing agents, strong oxidizing agents.
HAZARDOUS DECOMPOSING PRODUCTS	Toxic irritating and/or corrosive gases may be released during a fire: carbon oxides, nitrogen oxides, sulphur oxides.



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SECTION 11 – TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY	Acute Oral: Does not meet criteria. Acute Dermal: Does not meet criteria.
CHRONIC TOXICITY	Based on the available information, product does not meet criteria for chronic toxicity.
EYE / SKIN IRRITATION	Causes serious eye damage and skin irritation.
SENSITIZATION	Not available.
CARCINOGENICITY	No component of this product present at levels $\geq 0.1\%$ 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.



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SECTION 12 – ECOLOGICAL INFORMATION	
ECO TOXICITY	Aquatic Toxicity
<i>N-(n-butyl)-thiophosphoric triamide</i>	
Acute Toxicity	Algae
	Crustacea
	Fish
Test	EC ₅₀
	EC ₅₀
	LC ₅₀
	LC ₅₀
Species	Selenastrum capricornutum
	Daphnia magna
	Daphnia
	Lepomis macrochirus
Test Results	280 mg/l, 96 hours
	290 mg/l, 48 hours
	350 mg/l, 48 hours
	1140 mg/l, 96 hours
<i>N-methyl-2-pyrrolidone (CAS 872-50-4)</i>	
Acute Toxicity	Crustacea
	Algae
	Crustacea
	Fish
Test	LC ₅₀
	EC ₅₀
	EC ₅₀
	LC ₅₀
Species	Palaemonetes vulgaris
	Scenedesmus subspicatus
	Daphnia magna
	Oncorhynchus mykiss
Test Results	1107 mg/l, 96 hours
	> 500 mg/l, 72 hours
	> 1000 mg/l, 24 hours
	> 500 mg/l, 96 hours
Chronic Toxicity	Crustacea
Test	LC ₅₀
Species	Daphnia magna
Test Results	25 mg/l, 21 days



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Propylene Glycol (CAS 57-55-6)	
Acute Toxicity	Crustacea
Test	LC ₅₀
Species	Ceriodaphnia
Test Results	18340 mg/l, 48 hours
Ethylene Glycol (CAS 107-21-1)	
Acute Toxicity	Fish
	Crustacea
	Algae
Test	LC ₅₀
	EC ₅₀
	ErC ₅₀
Species	fish
	daphnia magna
	algae
Test Results	>72.860 mg/l, 96 hours
	>100 mg/l, 48 hours
	<13.000 mg/l, 96 hours
Chronic Toxicity	
Test	LC ₅₀
	EC ₅₀
	NOEC
Species	aquatic invertebrates
	aquatic invertebrates
	aquatic invertebrates
Test Results	>1.500 mg/l, 28 days
	>15.000 mg/l, 21 days
	≥1.000 mg/l, 23 days
Persistence and Degradability	This product is not readily biodegradable.
Bioaccumulation potential	Not available.
Partition coefficient n-octanol / water (log Kow)	
N-methyl-2-pyrrolidone (CAS 872-50-4)	-0.54
Propylene Glycol (CAS 57-55-6)	-0.92
Ethylene Glycol (CAS 107-21-1)	-1.36
Mobility in soil	Product is water soluble and may move through soil.



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SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of this product and its container in accordance with Federal, Provincial, and Local regulations. Do not allow this product to enter drains or drinking water sources.

SECTION 14 – TRANSPORT INFORMATION

SHIPPING

TDG: Not a dangerous good for transport.
DOT: Not a dangerous good for transport.
IATA: Not regulated as dangerous goods.
IMDG: Not regulated as dangerous goods.

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, 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.