



BORDER CHEMICAL

COMPANY LIMITED

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Monoammonium Phosphate (MAP) 11-52-0
SH02-20

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT IDENTIFICATION

Product Name Monoammonium Phosphate (MAP), 11-52-0
Synonyms Phosphate, 11-52-0
Chemical Family Ammonium Phosphate
Product Use Agricultural Fertilizer
Chemical Formula $\text{NH}_4\text{H}_2\text{PO}_4$
CAS Number 7722-76-1

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% by WT
Phosphate as P_2O_5	50 - 52%
Nitrogen as N	10 - 11%
Water	2%

SECTION 3 HAZARDS IDENTIFICATION

Classification Non-Toxic
Ingestion Avoid ingestion. Minimal hazard under normal conditions of use. Ingestion of large quantities may cause gastrointestinal discomfort, vomiting, weakness or other medically related problems.
Inhalation Avoid breathing dust. Dusty conditions may cause mechanical aggravation to respiratory mucous membranes.
Eye Contact Avoid excessive contact with eyes. Dust from this product may cause particulate discomfort to eyes.
Skin Absorption Not normally absorbed through the skin.
Skin Contact Slight dermal abrasion is possible with prolonged contact, especially around cuffs and collars.
Overexposure Unknown

SECTION 4 FIRST AID MEASURES

Ingestion Give large quantities of water and induce vomiting. Seek medical attention.
Inhalation Remove to fresh air. Seek medical attention if condition persists.
Eye contact Flush eyes with running water for at least 15 minutes. Seek medical attention.
Skin contact Wash with soap and water. Seek medical attention if condition persists.
Note to physician Consult standard literature. Treatment based on the sound judgment of the physician and the individual reactions of the patient.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media Use media suitable to extinguish source of fire.
Special Fire Fighting Procedures Product is not combustible.
Unusual Fire and Explosion Hazards During extremely high temperature fire conditions, the product may reach melting point and decompose to release NH_3 .
Specific Protective Equipment Wear respiratory equipment to avoid breathing dust.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Environmental Precautions	Keep out of water supplies, lakes, ponds, streams and rivers. This product is a fertilizer and may promote algae growth.
Steps to be taken in case material is released	Keep from entering waterways. Sweep up material and place in suitable container for use as a fertilizer or for disposal.

SECTION 7 HANDLING AND STORAGE

Store in a cool, dry area. Prevent spillage and separate from strong oxidizers. Use normal safety procedures and maintain proper hygiene practices when handling this product. Keep out of reach of children.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Adequate ventilation.
Respiratory Protection	Approved single use dust respirator should be used when necessary.
Protective Clothing	Normal clean work clothing.
Skin Protection	Protect open wounds.
Eye Protection	Safety glasses with side shields, or safety goggles should be worn to minimize contact, especially in dusty conditions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown, granulated solid material with slight odor.
Boiling Point	Not applicable.
Melting Point	Not applicable.
Specific Gravity	1.82
Density	63.61 lbs/ft ³
Molecular Weight	115.0
Flashpoint	Non-flammable
PH	4.2
Solubility in Water	20°C 87.0%
% Volatiles (by volume)	Not applicable.
Vapour Pressure, mmHg	Not applicable.
Reaction with Water	None

SECTION 10 STABILITY AND REACTIVITY

Stability (Normal Conditions)	Stable
Conditions to Avoid	Extreme temperatures.
Materials to Avoid	Strong oxidizing agents. Prolonged contact may cause oxidation of unprotected metals.
Hazardous Decompositions Products	During extreme high temperature fire conditions, the product may reach melting point and decompose to release NH ₃ , PO _x .
Hazardous Polymerization	Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Dermal Toxicity	LD ₅₀ (rat) >5,000 mg/kg (ppm); not acutely toxic by dermal exposure. (TFI Product Testing Results, OECD Guideline 402)
Acute Oral Toxicity	LD ₅₀ (rat) >2,000 mg/kg (ppm); not acutely toxic by oral exposure. (TFI Product Testing Results, OECD Guideline 425)

SECTION 12 ECOLOGICAL EFFECTS

Aquatic Fish 96-hour LC₅₀ OECD Guidelines 203 (rainbow trout) is greater than 85.9 mg/L (ppm). Non-toxic to aquatic organisms as defined by USEPA.

SECTION 13 DISPOSAL CONSIDERATIONS

Pick up with a shovel and broom and use as a fertilizer by applying to soil using good agricultural and soil management.

SECTION 14 TRANSPORT INFORMATION

Not regulated by US DOT nor Transport Canada.

SECTION 15 LEGEND

CAS NUMBER	Chemical Abstracts Service Registry Number
DOT	Department of Transportation - United States
LD ₅₀	Lethal Dose expected to kill 50% of a group of test animals.
LC ₅₀	Lethal Concentration expected to kill 50% of a group of test animals.

SECTION 17 MSDS PREPARATION INFORMATION

Prepared by:	Border Chemical Company Limited - (204) 222-3276
Date Issued	May 8, 2002
Date Reviewed/Revised	June 2003; April 30, 2006, April 1, 2009, April 1, 2012, October 16, 2014
Emergency Phone Number:	(204) 222-3276 - 24 hours

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