Section 1: IDENTIFICATION

Product Name:	Nutricote Total 18-6-8
Synonyms:	Not available.
Product Use:	Polymer coated controlled release fertilizer.
Restrictions on Use:	Not available.
Manufacturer:	JCAM AGRI. Co., Ltd. 6-6, Kandasudacho 2-chome, Chiyoda-ku, Tokyo, Japan +81-3-5297-8905
Supplier:	Plant Products Inc. 50 Hazelton Street Leamington, Ontario N8H 3W1
Phone Number:	519-326-9037 Toll free number 1-800-387-2449 (English) Toll free number 1-800-361-9184 (French)
Emergency Phone:	For Hazardous Material Incident, Spill, Leak, Fire, Exposure or Accident CHEMTREC 1-800-424-9300 CCN843603
Date of Preparation of SDS:	March 16, 2021

Section 2: HAZARD(S) IDENTIFICATION

GHS INFORMATION

Classification:
Acute Toxicity - Oral, Category 4
Acute Toxicity - Inhalation, Category 4
Skin Irritation, Category 2
Eye Irritation, Category 2A

LABEL ELEMENTS

Hazard Pictogram(s):

Signal Word: Warning

Hazard Statements:
Harmful if swallowed.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements

Prevention:
Avoid breathing mist, vapours, or spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing and eye protection.

Response: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
IF ON SKIN: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.
Rinse mouth.
If skin irritation occurs: Get medical attention.
If eye irritation persists: Get medical attention.
Take off contaminated clothing and wash it before reuse.

Storage: Not applicable.

Disposal: Dispose of contents and container in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: None.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.
Nitric acid ammonium salt (1:1)	Ammonium nitrate	6484-52-2	30 - 60
Boric acid (H3BO3)	Boric acid	10043-35-3	0.1 - 1

Actual concentration range(s) withheld as a trade secret.

Section 4: FIRST-AID MEASURES

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: Harmful if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Eye Contact: If in eyes: Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact: If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Acute and delayed symptoms and effects: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: If swallowed: Rinse mouth. Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: Harmful if swallowed. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May explode from heat or contamination. May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated. Runoff may create fire or explosion hazard.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.
Sensitivity to Static Discharge: This material is not sensitive to static discharge.

MEANS OF EXTINCTION

Suitable Extinguishing Media: Small Fire: Use water.

Large Fire: Flood fire area with water from a distance. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do it without risk.

Unsuitable Extinguishing Media: Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Products of Combustion: Oxides of carbon. Oxides of sulphur. Oxides of nitrogen. Oxides of phosphorus. Ammonia. Potassium oxide. Oxides of magnesium. Oxides of silicon. Oxides of boron.

Protection of Firefighters: Inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns or death. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing will only provide limited protection.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures: As an immediate precautionary measure, isolate spill or leak area in all directions for at least 25 meters (75 feet). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate

	closed spaces before entering. Keep combustibles (wood, paper, oil, etc.) away from spilled material.
Personal Precautions:	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8.
Environmental Precautions:	Not normally required.
Methods for Containment:	Stop leak if you can do it without risk. Do not get water inside containers.
Methods for Clean-Up:	Sweep up and shovel into suitable containers for disposal.
Other Information:	See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Handling:
Do not swallow. Avoid breathing dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. See Section 8 for information on Personal Protective Equipment.

Storage:
Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines
Component

Ammonium nitrate [CAS No. 6484-52-2]

ACGIH: 10 mg/m³ (TWA) (Inhalable.); 3 mg/m³ (TWA) (Respirable.); For Particles (Insoluble or Poorly Soluble) Not Otherwise Specified

OSHA: 15 mg/m³ (Total dust) (TWA), 5 mg/m³ (Respirable fraction) (TWA); For Particulates Not Otherwise Regulated (PNOR).

Boric acid [CAS No. 10043-35-3]

ACGIH: 2 mg/m³ (TWA); 6 mg/m³ (STEL); A4; Inhalable particulate matter (2004)

OSHA: No PEL established.

PEL: Permissible Exposure Limit
TWA: Time-Weighted Average
STEL: Short-Term Exposure Limit

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection:	Wear chemical safety goggles. Indirect vented, dust-tight goggles are required if dust is generated when handling this product. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.
Hand Protection:	Wear protective gloves. Consult manufacturer specifications for further information.
Skin and Body Protection:	Wear protective clothing.
Respiratory Protection:	If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4, with particulate filter, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
General Hygiene Considerations:	Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Grey granules.
Colour:	Grey.
Odour:	Odourless.
Odour Threshold:	Not available.
Physical State:	Solid.
pH (10% solution in water):	5
Melting Point / Freezing Point:	Not available.
Initial Boiling Point:	Not available.
Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability (solid, gas):	See Section 5.
Lower Flammability Limit:	Not available.

Upper Flammability Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density:	Not available.
Solubilities:	Fertilizer inside the coating dissolves in water gradually.
Partition Coefficient: n-Octanol/Water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.
Bulk Density:	1.1 g/cm^3
Coefficient of Water/Oil Distribution:	Not available.

Section 10: STABILITY AND REACTIVITY

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions.
Possibility of Hazardous Reactions:	None known.
Conditions to Avoid:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Not available.

Section 11: TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

Product Toxicity

Oral: Not available.

Dermal: Not available.

Inhalation: Not available.

Component Toxicity

Component	CAS No.	LD_{50} oral	LD_{50} dermal	LC_{50}
Ammonium nitrate	6484-52-2	2217 mg/kg (rat)	Not available.	Not available.
Boric acid	10043-35-3	2660 mg/kg (rat)	Not available.	Not available.

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system.

Symptoms (including delayed and immediate effects)

Inhalation: Harmful if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Eye: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin: Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin Sensitization: Not available.

Respiratory Sensitization: Not available.

Medical Conditions Aggravated By Exposure: Not available.

EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood. Cardiovascular system.

Chronic Effects: May cause chronic effects. Prolonged or repeated contact may dry skin and cause irritation. Symptoms of chronic poisoning by boron compounds, borism, vary from dry skin and mucous membranes to appearance of a red tongue, patchy alopecia (hair loss), cracked lips, and conjunctivitis. Infants and young children are more susceptible to boric acid poisoning than adults.

Carcinogenicity: Product is not classified as a carcinogen. See Component Carcinogenicity table below for information on individual components.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Boric acid	A4	Not listed.	Not listed.	Not listed.	Not listed.

Mutagenicity: Not available.

Reproductive Effects: May damage fertility or the unborn child. Boric acid was found to induce testicular atrophy and effects on spermatogenesis in rats and mice in various studies. Effects occurred at dose-levels (27 mg/kg) without general toxicity. Boric acid has selectively damaged the testes, sperm production and fertility in rats and dogs.

Developmental Effects

Teratogenicity: Possible risk of harm to the unborn child. Developmental effects were observed in mice, rats and rabbits after oral administration of boric acid. However, these effects were considered secondary to maternal

toxicity (increased liver and kidney weight).

Embryotoxicity: Not available.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: UN2071, AMMONIUM NITRATE BASED FERTILIZER, 9, PG III

Class: 9

UN Number: UN2071

Packing Group: III

Label Code:

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name: UN2071, AMMONIUM NITRATE BASED FERTILIZER, 9, PG III

Class: 9

UN Number: UN2071

Packing Group: III

Label Code:

Section 15: REGULATORY INFORMATION

Chemical Inventories

Canada (DSL)

The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Section 16: OTHER INFORMATION

Disclaimer:
The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.

Date of Preparation of SDS:	March 16, 2021
Version:	1.0
GHS SDS Prepared by:	**Aegis Regulatory Inc.**
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	www.aegisreg.com