

### SECTION 1: Identification

#### 1.1. Product identifier

Product name : 42 Phi Rhizo

#### 1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Liquid Fertilizer

#### 1.3. Supplier

ATP Nutrition Ltd.  
190 Agri Park Road  
Oak Bluff, MB  
R4G 0A5  
T 204-287-2023 - F 204-287-0027  
[infocanada@atpnutrition.ca](mailto:infocanada@atpnutrition.ca) - [www.atpnutrition.ca](http://www.atpnutrition.ca)

#### 1.4. Emergency telephone number

Emergency number : CANUTEC: +1-613-996-6666 or \*666 (cellular)

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS CA)

Acute toxicity (oral) Category 4	H302
Serious eye damage/eye irritation Category 2A	H319
Specific target organ toxicity (repeated exposure) Category 2	H373

#### 2.2. GHS Label elements, including precautionary statements

##### GHS CA labeling

Hazard pictograms (GHS CA) : 

Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H302 - Harmful if swallowed  
H319 - Causes serious eye irritation  
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS CA) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 - Get medical advice/attention if you feel unwell.  
P330 - Rinse mouth.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS CA)

No data available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Phosphoric acid, potassium salt (1:1)	CAS-No.: 7778-77-0	30 – 60
Manganese (II) Chloride Tetrahydrate	CAS-No.: 13446-34-9	5 – 10
Zinc oxide (ZnO)	CAS-No.: 1314-13-2	3 – 7

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
First-aid measures after skin contact	: Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
First-aid measures after eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
First-aid measures after ingestion	: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after inhalation	: None anticipated under normal product handling conditions.
Symptoms/effects after ingestion	: Harmful if swallowed.

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### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : None.

### 5.3. Specific hazards arising from the hazardous product

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Hygiene measures : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Do not store below the following temperature: 10°C (50°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

<b>Zinc oxide (ZnO) (1314-13-2)</b>	
<b>Canada (Alberta) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable)
OEL STEL	10 mg/m <sup>3</sup> (respirable)
<b>Canada (Quebec) - Occupational Exposure Limits</b>	
VECD (OEL STEL)	10 mg/m <sup>3</sup> (fume)
VEMP (OEL TWA)	10 mg/m <sup>3</sup> (containing no Asbestos and <1% Crystalline silica-total dust) 5 mg/m <sup>3</sup> (fume)
<b>Canada (British Columbia) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable)
OEL STEL	10 mg/m <sup>3</sup> (respirable)
<b>Canada (Manitoba) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable particulate matter)
OEL STEL	10 mg/m <sup>3</sup> (respirable particulate matter)
<b>Canada (New Brunswick) - Occupational Exposure Limits</b>	
OEL TWA	10 mg/m <sup>3</sup> (particulate matter containing no Asbestos and <1% Crystalline silica, dust) 5 mg/m <sup>3</sup> (fume)
OEL STEL	10 mg/m <sup>3</sup> (fume)
<b>Canada (Newfoundland and Labrador) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable particulate matter)
OEL STEL	10 mg/m <sup>3</sup> (respirable particulate matter)

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<b>Zinc oxide (ZnO) (1314-13-2)</b>	
<b>Canada (Nova Scotia) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable particulate matter)
OEL STEL	10 mg/m <sup>3</sup> (respirable particulate matter)
<b>Canada (Nunavut) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (dust and fume; respirable fraction)
OEL STEL	10 mg/m <sup>3</sup> (dust and fume; respirable fraction)
<b>Canada (Northwest Territories) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (dust and fume; respirable fraction)
OEL STEL	10 mg/m <sup>3</sup> (dust and fume; respirable fraction)
<b>Canada (Ontario) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable)
OEL STEL	10 mg/m <sup>3</sup> (respirable)
<b>Canada (Prince Edward Island) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (respirable particulate matter)
OEL STEL	10 mg/m <sup>3</sup> (respirable particulate matter)
<b>Canada (Saskatchewan) - Occupational Exposure Limits</b>	
OEL TWA	2 mg/m <sup>3</sup> (dust and fume, respirable fraction)
OEL STEL	10 mg/m <sup>3</sup> (dust and fume, respirable fraction)
<b>Canada (Yukon) - Occupational Exposure Limits</b>	
OEL TWA	5 mg/m <sup>3</sup> (fume) 30 mppcf (dust) 10 mg/m <sup>3</sup> (dust)
OEL STEL	10 mg/m <sup>3</sup> (fume)
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH OEL TWA	2 mg/m <sup>3</sup> (respirable particulate matter)
ACGIH OEL STEL	10 mg/m <sup>3</sup> (respirable particulate matter)
<b>USA - OSHA - Occupational Exposure Limits</b>	
OSHA PEL (TWA) [1]	5 mg/m <sup>3</sup> (fume) 15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)

### 8.2. Appropriate engineering controls

- |                                  |   |  |
|----------------------------------|---|--|
| Appropriate engineering controls | : | If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. |
| Environmental exposure controls  | : | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.  |

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### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### Eye protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin and body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

#### Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Light pink
Odor	: None
Odor threshold	: No data available
pH	: 1
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.45
Solubility	: No data available

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Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: None
Incompatible materials	: Oxidizers.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Phosphoric acid, potassium salt (1:1) (7778-77-0)

LD50 oral rat	3200 mg/kg
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#### Zinc oxide (ZnO) (1314-13-2)

LD50 oral rat	> 5000 mg/kg
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#### Manganese (II) Chloride Tetrahydrate (13446-34-9)

ATE CA (oral)	100 mg/kg body weight
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Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

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### 12.2. Persistence and degradability

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Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### 42 Phi Rhizo

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

In accordance with TDG / DOT / IMDG / IATA

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

### 14.3. Transport hazard class(es)

**TDG**  
Transport hazard class(es) (TDG) : Not applicable

**DOT**  
Transport hazard class(es) (DOT) : Not applicable

**IMDG**  
Transport hazard class(es) (IMDG) : Not applicable



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### IATA

Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (TDG) : Not applicable

Packing group (DOT) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### TDG

No data available

#### DOT

No data available

#### IMDG

No data available

#### IATA

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

#### Phosphoric acid, potassium salt (1:1) (7778-77-0)

Listed on the Canadian DSL (Domestic Substances List)

#### Zinc oxide (ZnO) (1314-13-2)

Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: Other information

Date of Issue: 10/20/2022

Date of Previous Issue: -

Version: 1

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