

# PHT P-K Express

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : PHT P-K Express  
Product code : M77700

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.3. Details of the supplier of the safety data sheet

JR Simplot Company  
Boise, ID 83707  
T 1-208-336-2110

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

### SECTION 2: Hazards identification

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

##### Classification (GHS-US)

Skin Irrit. 2 H315  
Eye Irrit. 2B H320

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation  
H320 - Causes eye irritation

Precautionary statements (GHS-US) :

P264 - Wash ... thoroughly after handling  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302 + P352 - If on skin: Wash with plenty of water/...  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P321 - Specific treatment (see ... on this label)  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P362 - Take off contaminated clothing and wash before reuse

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Monopotassium phosphate	(CAS No) 7778-77-0		Not classified
urea	(CAS No) 57-13-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335

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Name	Product identifier	%	Classification (GHS-US)
potassium sulfate	(CAS No) 7778-80-5		Not classified
Kelp	(CAS No) 84775-78-0		Not classified
magnesium sulfate	(CAS No) 7487-88-9		Not classified
Zinc EDTA	(CAS No) 14025-21-9		Not classified
Copper EDTA	(CAS No) 14025-15-1		Not classified
edta iron(iii) sodium salt	(CAS No) 15708-41-5		Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
EDTA Manganese Sodium	(CAS No) 15375-84-5		Eye Irrit. 2B, H320
ammonium molybdate(VI)	(CAS No) 13106-76-8		Not classified
Sodium Borate	(CAS No) 12008-41-2		Acute Tox. 4 (Oral), H302

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Reactivity : Stable.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

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

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### ammonium molybdate(VI) (13106-76-8)

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
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##### edta iron(iii) sodium salt (15708-41-5)

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
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#### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.  
Hand protection : Wear protective gloves.  
Eye protection : Chemical goggles or safety glasses.  
Respiratory protection : Wear appropriate mask.  
Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

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

Physical state : Solid  
Appearance : Solid blue crystalline granules.  
Color : Blue  
Odor : Slight to moderate  
Odor threshold : No data available  
pH : 4 - 7  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : Non-flammable  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapor pressure : No data available  
Relative vapor density at 20 °C : No data available  
Relative density : No data available  
Solubility : Soluble.  
Water: Solubility in water of component(s) of the mixture :  
•: 22 g/100ml •: 100 g/100ml •: 11 g/100ml •: 26 g/100ml •: 100 g/100ml •: < 10 g/100ml •: 0.43 g/100ml •: 9.5 g/100ml  
Log Pow : No data available  
Log Kow : No data available  
Viscosity, kinematic : No data available

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Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable.

### 10.2. Chemical stability

Stable. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high temperatures. Wet/humid conditions. Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Oxidizing agent. reducing agents. sodium hypochlorite. Alkalis. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Extremely high temperatures. The product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub>, or CN. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Monopotassium phosphate (7778-77-0)</b>	
LD50 oral rat	7100 mg/kg (Rat)
LD50 dermal rabbit	> 4640 mg/kg (Rabbit)
ATE US (oral)	7100.00000000 mg/kg body weight

  

<b>urea (57-13-6)</b>	
LD50 oral rat	8471 mg/kg (Rat)
LD50 dermal rat	> 3200 mg/kg (Rat)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit)
ATE US (oral)	8471.00000000 mg/kg body weight

  

<b>potassium sulfate (7778-80-5)</b>	
LD50 oral rat	6600 mg/kg (Rat)
ATE US (oral)	6600.00000000 mg/kg body weight

  

<b>magnesium sulfate (7487-88-9)</b>	
LD50 oral rat	> 4000 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg (Rat)

  

<b>ammonium molybdate(VI) (13106-76-8)</b>	
LD50 oral rat	3883 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
ATE US (oral)	3883.00000000 mg/kg body weight

  

<b>edta iron(iii) sodium salt (15708-41-5)</b>	
LD50 oral rat	5000 mg/kg (Rat)
ATE US (oral)	5000.00000000 mg/kg body weight

  

<b>Sodium Borate (12008-41-2)</b>	
LD50 oral rat	2 g/kg
LD50 dermal rabbit	> 2000 mg/kg

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<b>Sodium Borate (12008-41-2)</b>	
ATE US (oral)	2000.00000000 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation. pH: 4 - 7
Serious eye damage/irritation	: Causes eye irritation. pH: 4 - 7
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Monopotassium phosphate (7778-77-0)</b>	
LC50 fish 1	> 900 mg/l (48 h; <i>Leuciscus idus</i> )
EC50 other aquatic organisms 1	2 ppm (672 h; <i>Potamogeton</i> sp.; O2 evolution)
Threshold limit other aquatic organisms 1	1 ppm (672 h; <i>Potamogeton</i> sp.; O2 evolution)
Threshold limit algae 1	1 ppm (672 h; <i>Elodea</i> sp.; O2 evolution)
Threshold limit algae 2	> 5 ppm (672 h; <i>Elodea</i> sp.; O2 evolution)
<b>urea (57-13-6)</b>	
LC50 fish 1	> 6810 mg/l (96 h; <i>Leuciscus idus</i> )
EC50 Daphnia 1	> 10000 mg/l (48 h; <i>Daphnia magna</i> )
LC50 fish 2	17500 mg/l (96 h; <i>Poecilia reticulata</i> )
EC50 Daphnia 2	> 10000 mg/l (24 h; <i>Daphnia magna</i> )
TLM fish 1	17500 ppm (96 h; <i>Poecilia reticulata</i> )
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l ( <i>Pseudomonas putida</i> )
Threshold limit algae 2	> 10000 mg/l (168 h; <i>Scenedesmus quadricauda</i> )
<b>potassium sulfate (7778-80-5)</b>	
LC50 fish 1	1692.4 mg/l (96 h; <i>Alburnus alburnus</i> )
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	890 mg/l (48 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	653 - 796 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 2	1180 mg/l (96 h; Crustacea)
TLM fish 1	3550 ppm (96 h; <i>Lepomis</i> sp.)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	2900 mg/l (72 h; <i>Scenedesmus subspicatus</i> )
<b>magnesium sulfate (7487-88-9)</b>	
LC50 fish 1	14000 mg/l (48 h; <i>Leuciscus idus</i> )
EC50 Daphnia 1	1700 mg/l (24 h; <i>Daphnia magna</i> )
LC50 fish 2	15500 mg/l (96 h; <i>Gambusia affinis</i> )
Threshold limit other aquatic organisms 1	27.4 g/l (0.5 h; <i>Photobacterium phosphoreum</i> )
Threshold limit algae 2	220 mg/l (72 h; <i>Scenedesmus subspicatus</i> ; Biomass)

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<b>edta iron(iii) sodium salt (15708-41-5)</b>	
LC50 fish 1	2592 mg/l (96 h; Pisces)

### 12.2. Persistence and degradability

<b>PHT P-K Express</b>	
Persistence and degradability	Not established.

<b>Monopotassium phosphate (7778-77-0)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>urea (57-13-6)</b>	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O <sub>2</sub> /g substance

<b>potassium sulfate (7778-80-5)</b>	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>magnesium sulfate (7487-88-9)</b>	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>EDTA Manganese Sodium (15375-84-5)</b>	
Persistence and degradability	Not established.

<b>ammonium molybdate(VI) (13106-76-8)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.

<b>Zinc EDTA (14025-21-9)</b>	
Persistence and degradability	Non degradable in the soil. Adsorbs into the soil. Not established.

<b>Copper EDTA (14025-15-1)</b>	
Persistence and degradability	Not established.

<b>edta iron(iii) sodium salt (15708-41-5)</b>	
Persistence and degradability	Biodegradable in water. Not established.

<b>Kelp (84775-78-0)</b>	
Persistence and degradability	Not established.

<b>Sodium Borate (12008-41-2)</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>PHT P-K Express</b>	
Bioaccumulative potential	Not established.

<b>Monopotassium phosphate (7778-77-0)</b>	
Bioaccumulative potential	No bioaccumulation data available.

<b>urea (57-13-6)</b>	
BCF fish 1	1 (72 h; Brachydanio rerio; Fresh water)
BCF other aquatic organisms 1	11700 (Chlorella sp.)
Log Pow	-2.59 - -1.59

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<b>urea (57-13-6)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>potassium sulfate (7778-80-5)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>magnesium sulfate (7487-88-9)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>EDTA Manganese Sodium (15375-84-5)</b>	
Bioaccumulative potential	Not established.
<b>ammonium molybdate(VI) (13106-76-8)</b>	
Bioaccumulative potential	Not established.
<b>Zinc EDTA (14025-21-9)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>Copper EDTA (14025-15-1)</b>	
Bioaccumulative potential	Not established.
<b>edta iron(iii) sodium salt (15708-41-5)</b>	
Log Pow	-10.6
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Kelp (84775-78-0)</b>	
Bioaccumulative potential	Not established.
<b>Sodium Borate (12008-41-2)</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on ozone layer : No additional information available  
Effect on the global warming : No known ecological damage caused by this product.  
Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT  
Not regulated for transport

### Additional information

Other information : No supplementary information available.

### ADR

Transport document description :

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:

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Kelp	CAS No 84775-78-0
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This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

### Kelp (84775-78-0)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

## 15.2. International regulations

### CANADA

No additional information available

### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

### 15.2.2. National regulations

No additional information available

## 15.3. US State regulations

### ammonium molybdate(VI) (13106-76-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

## SECTION 16: Other information

Data sources :  
: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

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