

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : SMART START PLUS 9-28-3

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

#### 1.3. Supplier

INNICTIS® BIOSCIENCE  
 PLANT HEALTH TECHNOLOGIES  
 P.O. Box 9296  
 Boise ID 83707, - USA  
 T 855-466-8428

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

### SECTION 2: Hazard(s) identification

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

##### GHS-US classification

Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 2A	H319 Causes serious eye irritation.
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335 May cause respiratory irritation.

Full text of H statements : see section 16

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

##### GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H335 - May cause respiratory irritation.

Precautionary statements (GHS US) :

P261 - Avoid breathing mist, spray, fume.  
 P264 - Wash hands thoroughly after handling.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P280 - Wear eye protection, face protection, protective gloves.  
 P302+P352 - If on skin: Wash with plenty of water  
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 - Call poison control center of doctor for treatment advice if you feel unwell  
 P321 - Specific treatment (see supplemental first aid instruction on this label)  
 P332+P313 - If skin irritation occurs: Get medical attention  
 P337+P313 - If eye irritation persists: Get medical attention  
 P362 - Take off contaminated clothing.  
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to ... in accordance with Federal, state, and local regulations

#### 2.3. Other hazards which do not result in classification

No additional information available

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

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Ammonium Polyphosphate	(CAS-No.) 68333-79-9		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
tetrapotassium pyrophosphate, anhydrous	(CAS-No.) 7320-34-5		Not classified
urea	(CAS-No.) 57-13-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
phosphoric acid	(CAS-No.) 7664-38-2		Met. Corr. 1, H290 Skin Corr. 1B, H314
HEDTA iron salt solution	(CAS-No.) 17084-02-5		Met. Corr. 1, H290 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Diammonium Salt of Zinc Ethylene-Diaminetetraacetic	(CAS-No.) 67859-51-2		Not classified

Full text of hazard classes and H-statements : see section 16

## 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 : Allow affected person to breathe fresh air. 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 persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

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

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

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

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the 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.

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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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## 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 vapour.

### 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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>SMART START PLUS 9-28-3</b>	
No additional information available	
<b>Ammonium Polyphosphate (68333-79-9)</b>	
No additional information available	
<b>tetrapotassium pyrophosphate, anhydrous (7320-34-5)</b>	
No additional information available	
<b>HEDTA iron salt solution (17084-02-5)</b>	
No additional information available	
<b>urea (57-13-6)</b>	
No additional information available	
<b>phosphoric acid (7664-38-2)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
ACGIH STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
<b>Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)</b>	
No additional information available	

### 8.2. Appropriate engineering controls

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

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

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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	: Liquid
Colour	: Green
Odour	: characteristic
Odour threshold	: No data available
pH	: 7 – 8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 11.59 lbs/gallon
Solubility	: Complete.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable. Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Zinc-clad and copper bearing alloys. Alkalis. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Ammonia, POx and NOx. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
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Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

<b>SMART START PLUS 9-28-3</b>	
LD50 oral rat	> 2149 mg/kg
LD50 dermal rat	> 5000 mg/kg
<b>Ammonium Polyphosphate (68333-79-9)</b>	
LD50 oral rat	5625 mg/kg (Rat)
LD50 dermal rabbit	> 3160 mg/kg (Rabbit)
<b>tetrapotassium pyrophosphate, anhydrous (7320-34-5)</b>	
LD50 dermal rabbit	> 4640 mg/kg (Rabbit)
<b>urea (57-13-6)</b>	
LD50 oral rat	8471 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3200 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit; Literature study)
<b>phosphoric acid (7664-38-2)</b>	
LD50 oral rat	(Rat)

Skin corrosion/irritation : Causes skin irritation.

pH: 7 – 8

Serious eye damage/irritation : Causes serious eye irritation.

pH: 7 – 8

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

<b>Ammonium Polyphosphate (68333-79-9)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>urea (57-13-6)</b>	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

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

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>tetrapotassium pyrophosphate, anhydrous (7320-34-5)</b>	
LC50 fish 1	> 750 mg/l (48 h; Leuciscus idus)
<b>urea (57-13-6)</b>	
LC50 fish 1	> 6810 mg/l (96 h; Leuciscus idus; Nominal concentration)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Nominal concentration)
LC50 fish 2	17500 mg/l (96 h; Poecilia reticulata)

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<b>urea (57-13-6)</b>	
EC50 Daphnia 2	> 10000 mg/l (24 h; Daphnia magna)
TLM fish 1	17500 ppm (96 h; Poecilia reticulata)
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l (Pseudomonas putida)
Threshold limit algae 1	> 10000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)
Threshold limit algae 2	47 mg/l (192 h; Microcystis aeruginosa; Growth rate)
<b>phosphoric acid (7664-38-2)</b>	
LC50 fish 1	138 mg/l (96 h; Pisces; Pure substance)
LC50 other aquatic organisms 1	240 mg/l (96 h; Protozoa; Pure substance)
LC50 fish 2	100 – 1000 mg/l (Pisces; Pure substance)
LC50 other aquatic organisms 2	100 – 1000 mg/l (Pure substance)
TLM fish 1	138 ppm (24 h; Gambusia affinis; Pure substance)
Threshold limit other aquatic organisms 1	240 mg/l (96 h; Protozoa; Pure substance)
Threshold limit other aquatic organisms 2	100 - 1000, Pure substance

### 12.2. Persistence and degradability

<b>SMART START PLUS 9-28-3</b>	
Persistence and degradability	Not established.
<b>Ammonium Polyphosphate (68333-79-9)</b>	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the components available. Not established.
<b>tetrapotassium pyrophosphate, anhydrous (7320-34-5)</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>HEDTA iron salt solution (17084-02-5)</b>	
Persistence and degradability	Not established.
<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>phosphoric acid (7664-38-2)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>SMART START PLUS 9-28-3</b>	
Bioaccumulative potential	Not established.
<b>Ammonium Polyphosphate (68333-79-9)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>tetrapotassium pyrophosphate, anhydrous (7320-34-5)</b>	
Bioaccumulative potential	Bioaccumulation: not applicable.

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<b>HEDTA iron salt solution (17084-02-5)</b>	
Bioaccumulative potential	Not established.
<b>urea (57-13-6)</b>	
BCF fish 1	1 (72 h; Brachydanio rerio; Fresh water)
BCF other aquatic organisms 1	11700 (Chlorella sp.)
Partition coefficient n-octanol/water (Log Pow)	< -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>phosphoric acid (7664-38-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : Avoid unintentional release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

### Transportation of Dangerous Goods

### Transport by sea

### Air transport

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### phosphoric acid (7664-38-2)

CERCLA RQ	5000 lb
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### 15.2. International regulations

#### CANADA

#### Ammonium Polyphosphate (68333-79-9)

Listed on the Canadian DSL (Domestic Substances List)

#### tetrapotassium pyrophosphate, anhydrous (7320-34-5)

Listed on the Canadian DSL (Domestic Substances List)

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### HEDTA iron salt solution (17084-02-5)

Listed on the Canadian DSL (Domestic Substances List)

### urea (57-13-6)

Listed on the Canadian DSL (Domestic Substances List)

### phosphoric acid (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List)

### Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

#### 15.3. US State regulations

Component	State or local regulations
phosphoric acid(7664-38-2)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

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

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling 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-statements:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H335	May cause respiratory irritation.

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*