

# Best Palm Plus 13-5-8 with GAL-Xe ONE Technology

## Safety Data Sheet

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

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : Best Palm Plus 13-5-8 with GAL-Xe ONE Technology  
Product code : M75167

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

No additional information available

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

JR Simplot Company  
P.O. Box 70013  
Boise, ID 83707  
T 1-208-336-2110

#### 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

Eye Irrit. 2B H320 - Causes eye irritation

Full text of H-statements: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H320 - Causes eye irritation  
Precautionary statements (GHS-US) : P264 - Wash ... thoroughly after handling  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical attention

#### 2.3. Other hazards

No additional information available

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

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

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Name	Product identifier	%	GHS-US classification
urea (57-13-6)	(CAS No) 57-13-6		Eye Irrit. 2B, H320
dolomite	(CAS No) 16389-88-1		Eye Irrit. 2B, H320
ammonium sulfate (7783-20-2)	(CAS No) 7783-20-2		Not classified
potassium sulfate	(CAS No) 7778-80-5		Not classified
Monoammonium Phosphate	(CAS No) 7722-76-1		Eye Irrit. 2B, H320 STOT SE 3, H335
Manganese Sulfate			Not classified
Polymer Coating			Not classified
potassium chloride	(CAS No) 7447-40-7		Not classified
Iron Oxysulfate			Eye Irrit. 2B, H320
Proprietary			Not classified
Sand			STOT SE 3, H335
Manganese Oxysulfate			Eye Irrit. 2B, H320
Wax	(CAS No) 64771-72-8		Not classified
diatomaceous earth	(CAS No) 61790-53-2		Eye Irrit. 2B, H320 STOT SE 3, H335

Full text of 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 breathing of 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 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 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 after eye contact : Causes eye irritation.

#### 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

No additional information available

#### 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.

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### 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.

## 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

dolomite (16389-88-1)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>

### 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 : Granules.  
Colour : Multi-colored  
Odour : characteristic  
Odour threshold : No data available  
pH : No data available  
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) : No data available  
Explosive limits : No data available  
Explosive properties : No data available

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Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 70-72 lbs/ft3
Solubility	: Slowly soluble, coating insoluble. Water: Solubility in water of component(s) of the mixture : • Monoammonium Phosphate: 38 g/100ml • potassium chloride: 34 g/100ml • potassium sulfate: 11 g/100ml • dolomite: 0.0078 g/100ml • diatomaceous earth: insoluble • urea (57-13-6): 100 g/100ml • ammonium sulfate (7783-20-2): 77 g/100ml
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 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.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight.

### 10.5. Incompatible materials

Oxidizing agent. Prolonged contact may cause oxidation of unprotected metals. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

During high temperature in fire conditions. 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

Monoammonium Phosphate (7722-76-1)	
LD50 oral rat	5750 mg/kg (Rat)
LD50 dermal rat	> mg/kg
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
ATE US (oral)	5750.000 mg/kg bodyweight
potassium sulfate (7778-80-5)	
LD50 oral rat	6600 mg/kg (Rat)
ATE US (oral)	6600.000 mg/kg bodyweight
potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg (Rat)
ATE US (oral)	2600.000 mg/kg bodyweight
Manganese Oxysulfate	
LD50 oral rat	2150 mg/kg
ATE US (oral)	2150.000 mg/kg bodyweight

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<b>ammonium sulfate (7783-20-2) (7783-20-2)</b>	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	2840.000 mg/kg bodyweight

<b>urea (57-13-6) (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)
ATE US (oral)	8471.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified

<b>diatomaceous earth (61790-53-2)</b>	
IARC group	3 - Not classifiable

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

Aspiration hazard : Not classified

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

Symptoms/injuries after eye contact : Causes eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Monoammonium Phosphate (7722-76-1)</b>	
LC50 fish 1	155 ppm (96 h; Pimephales promelas)

<b>potassium sulfate (7778-80-5)</b>	
LC50 fish 1	1692.4 mg/l (96 h; Alburnus alburnus)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	890 mg/l (48 h; Daphnia magna; Static system)
LC50 fish 2	653 - 796 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	1180 mg/l (96 h; Crustacea)
TLM fish 1	3550 ppm (96 h; Lepomis sp.)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	2900 mg/l (72 h; Scenedesmus subspicatus)

<b>potassium chloride (7447-40-7)</b>	
LC50 fish 1	920 mg/l (96 h; Gambusia affinis; Static system)
EC50 Daphnia 1	630 mg/l (48 h; Ceriodaphnia dubia)
LC50 fish 2	2010 mg/l (96 h; Lepomis macrochirus; Static system)

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<b>potassium chloride (7447-40-7)</b>	
EC50 Daphnia 2	660 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	850 mg/l (72 h; Scenedesmus subspicatus)
Threshold limit algae 2	> 100 mg/l (72 h; Scenedesmus subspicatus; GLP)

<b>ammonium sulfate (7783-20-2) (7783-20-2)</b>	
LC50 fish 1	126 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 1	202 mg/l (96 h; Daphnia magna)
LC50 fish 2	250 - 480 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 2	433 mg/l (50 h; Daphnia magna)
TLM fish 1	1290 ppm (96 h; Gambusia affinis)

<b>urea (57-13-6) (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)
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)

### 12.2. Persistence and degradability

<b>Best Palm Plus 13-5-8 with GAL-Xe ONE Technology</b>	
Persistence and degradability	Not established.

<b>Monoammonium Phosphate (7722-76-1)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.

<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>Iron Oxyulfate</b>	
Persistence and degradability	Not established.

<b>potassium chloride (7447-40-7)</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>Wax (64771-72-8)</b>	
Persistence and degradability	Not established.

<b>Sand</b>	
Persistence and degradability	Not established.

<b>dolomite (16389-88-1)</b>	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

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<b>dolomite (16389-88-1)</b>	
BOD (% of ThOD)	Not applicable
<b>diatomaceous earth (61790-53-2)</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>Manganese Sucrate</b>	
Persistence and degradability	Not established.
<b>Proprietary</b>	
Persistence and degradability	Not established.
<b>ammonium sulfate (7783-20-2) (7783-20-2)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.
<b>urea (57-13-6) (57-13-6)</b>	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Best Palm Plus 13-5-8 with GAL-Xe ONE Technology</b>	
Bioaccumulative potential	Not established.
<b>Monoammonium Phosphate (7722-76-1)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>potassium sulfate (7778-80-5)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>Iron Oxysulfate</b>	
Bioaccumulative potential	Not established.
<b>potassium chloride (7447-40-7)</b>	
Log Pow	-0.46 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Wax (64771-72-8)</b>	
Bioaccumulative potential	Not established.
<b>Sand</b>	
Bioaccumulative potential	Not established.
<b>dolomite (16389-88-1)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>diatomaceous earth (61790-53-2)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>Manganese Sucrate</b>	
Bioaccumulative potential	Not established.
<b>Proprietary</b>	
Bioaccumulative potential	Not established.
<b>ammonium sulfate (7783-20-2) (7783-20-2)</b>	
Log Pow	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>urea (57-13-6) (57-13-6)</b>	
BCF fish 1	1 (72 h; Brachydanio rerio; Fresh water)
BCF other aquatic organisms 1	11700 (Chlorella sp.)
Log Pow	< -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

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

### Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

### TDG

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Best Palm Plus 13-5-8 with GAL-Xe ONE Technology

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

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

	CAS No	%
Iron Oxysulfate	CAS No	%
Polymer Coating	CAS No	%
Manganese Oxysulfate	CAS No	%
Sand	CAS No	%
Manganese Sucrate	CAS No	%
Proprietary	CAS No	%

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.

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available



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### National regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

#### diatomaceous earth (61790-53-2)

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, 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:

Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

*Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.*