

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : 3-18-18 Liquid Fertilizer
 Synonym : 3-18-18 100% Orthophosphate

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Agricultural Application

1.3. Supplier

Manufacturer
 MicroSource, LLC
 7632 County Rd 101
 Shakopee, MN 55379 - USA
 T 651-726-1150
sds@gavilon.com

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

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

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	%
Water	(CAS-No.) 7732-18-5	45 - 55
Dipotassium phosphate	(CAS-No.) 7758-11-4	25 - 35
Urea	(CAS-No.) 57-13-6	3 - 7
Phosphoric acid, potassium salt (1:1)	(CAS-No.) 7778-77-0	1 - 5
Monoammonium phosphate	(CAS-No.) 7722-76-1	1 - 5
Diammonium phosphate	(CAS-No.) 7783-28-0	1 - 5

Comments : This Safety Data Sheet is not a guarantee of product specification or NPK value(s). NPK content is on specified sales orders, customer invoices, or product specification sheets obtained from the supplier.
 All concentrations are in percent weight.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
 First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

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| 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. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. |

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

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| Symptoms/effects after inhalation | : May cause irritation to the respiratory tract. |
| Symptoms/effects after skin contact | : May cause skin irritation. Repeated exposure may cause skin dryness or cracking. |
| Symptoms/effects after eye contact | : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | : None known. |

5.2. Specific hazards arising from the chemical

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| Fire hazard | : Products of combustion may include, and are not limited to: oxides of carbon. Ammonia. Oxides of nitrogen. Oxides of phosphorus. |
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5.3. Special protective equipment and precautions for fire-fighters

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| Protection during firefighting | : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). |
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

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|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For containment | : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment. |
| Methods for cleaning up | : Sweep or shovel spills into appropriate container for disposal. Provide ventilation. |

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| Precautions for safe handling | : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. |
| Hygiene measures | : Wash contaminated clothing before reuse. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

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| Storage conditions | : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool area. Protect from sunlight. Avoid high temperatures. Keep from freezing. |
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Water (7732-18-5)		
Not applicable		
Dipotassium phosphate (7758-11-4)		
Not applicable		
Urea (57-13-6)		
AIHA	WEEL TWA (mg/m ³)	10 mg/m ³
Phosphoric acid, potassium salt (1:1) (7778-77-0)		
Not applicable		
Monoammonium phosphate (7722-76-1)		
Not applicable		
Diammonium phosphate (7783-28-0)		
Not applicable		

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves

Eye protection:

Safety glasses or goggles are recommended when using product.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Color	: Colorless
Odor	: Nearly odourless, mild ammonical
Odor threshold	: No data available
pH	: 6.8 - 7.8
Melting point	: -5 °F / -21 °C
Freezing point	: -5 °F / -21 °C
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 11.67 lb/gal
Solubility	: Completely soluble

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Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: Not flammable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not flammable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials. Extreme temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Ammonia. Oxides of nitrogen. Oxides of phosphorus.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Water (7732-18-5)	
LD50 oral rat	> 90 ml/kg
Urea (57-13-6)	
LD50 oral rat	8471 mg/kg
ATE US (oral)	8471 mg/kg body weight
Phosphoric acid, potassium salt (1:1) (7778-77-0)	
LD50 oral rat	3200 mg/kg
Monoammonium phosphate (7722-76-1)	
LD50 oral rat	5750 mg/kg
LD50 dermal rabbit	> 7940 mg/kg
ATE US (oral)	5750 mg/kg body weight
Diammonium phosphate (7783-28-0)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation	: Not classified pH: 6.8 - 7.8
Serious eye damage/irritation	: Not classified pH: 6.8 - 7.8
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Urea (57-13-6)	
LC50 fish 1	16200 - 18300 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)
EC50 Daphnia 1	3910 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Diammonium phosphate (7783-28-0)	
LC50 fish 1	26.5 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
LC50 fish 2	24.8 - 29.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

12.2. Persistence and degradability

3-18-18 Liquid Fertilizer	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

3-18-18 Liquid Fertilizer	
Bioaccumulative potential	Not established.

Urea (57-13-6)	
BCF fish 1	< 10
Partition coefficient n-octanol/water	-1.59 (at 25 °C)

Monoammonium phosphate (7722-76-1)	
BCF fish 1	(no bioaccumulation expected)

Diammonium phosphate (7783-28-0)	
BCF fish 1	(no bioaccumulation expected)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 15: Regulatory information

15.1. US Federal regulations

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Dipotassium phosphate (7758-11-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Urea (57-13-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Monoammonium phosphate (7722-76-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Diammonium phosphate (7783-28-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

The mixture is subject to reporting under SARA Section 313:

- For aqueous ammonia compounds due to the presence of ammonium compounds: 1.0 % de minimis concentration (10% of total aqueous ammonia is reportable under this listing)

15.2. International 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

SECTION 16: Other information

Date of issue : 04/22/2019
Revision date : 04/22/2019
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



SDS US (GHS HazCom 2012)_NEXREG_NEW

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