

SP 22-4-22 Autumn K with 4% Fe

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 : SP 22-4-22 Autumn K with 4% Fe
Product code : M77107

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

Use of the substance/mixture : Fertilizer

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

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2A H319
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335

Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Contains : Monoammonium Phosphate; biuret; calcium sulfate
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 dust/fume/gas/mist/vapours/spray
P264 - Wash hands, forearms and face thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
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 a poison center/doctor/... 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+P364 - Take off contaminated clothing and wash it before reuse
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 local/regional/national regulations

2.3. Other hazards

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. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
urea (57-13-6)	(CAS No) 57-13-6	<= 46.4946	Eye Irrit. 2B, H320
potassium chloride	(CAS No) 7447-40-7	<= 37.1256	Not classified
Monoammonium Phosphate	(CAS No) 7722-76-1	7.7	Eye Irrit. 2B, H320 STOT SE 3, H335
iron(II,III)oxide	(CAS No) 1317-61-9	7.2	Not classified
calcium sulfate	(CAS No) 7778-18-9	<= 4.93	Eye Irrit. 2B, H320 STOT SE 3, H335
Proprietary		<= 3.025	Not classified
sodium chloride	(CAS No) 7647-14-5	<= 1.488	Not classified
biuret	(CAS No) 108-19-0	<= 0.7065	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
POLYOXYMETHYLENE UREA	(CAS No) 68611-64-3	<= 0.5967	Not classified
Water	(CAS No) 7732-18-5	<= 0.0884	Not classified

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	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).
First-aid measures after eye contact	: 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	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious 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

Reactivity	: Stable under normal conditions and use.
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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.
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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.

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. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash hands, forearms and face thoroughly after handling.

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 tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Monoammonium Phosphate (7722-76-1)		
Not applicable		
urea (57-13-6) (57-13-6)		
Not applicable		
POLYOXYMETHYLENE UREA (68611-64-3)		
Not applicable		
Water (7732-18-5)		
Not applicable		
biuret (108-19-0)		
Not applicable		
potassium chloride (7447-40-7)		
Not applicable		
sodium chloride (7647-14-5)		
Not applicable		
calcium sulfate (7778-18-9)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
Not applicable		
iron(II,III)oxide (1317-61-9)		
Not applicable		
Proprietary		
Not applicable		

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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.
Skin and body protection	: Wear suitable protective clothing.
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	: Odourless
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
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	: 61 lbs./ft ³
Solubility	: Partially soluble in water. Water: Solubility in water of component(s) of the mixture : • Monoammonium Phosphate: 38 g/100ml • urea (57-13-6): 100 g/100ml • biuret: 2.0 g/100ml (25°C) • calcium sulfate: 0.25 g/100ml • iron(II,III)oxide: insoluble • potassium chloride: 34 g/100ml • sodium chloride: 31.7 g/100ml (20 °C)
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

Stable under normal conditions and use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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10.5. Incompatible materials

Strong acids. Strong bases. Chlorites. Hypochlorite. Strong oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Hydrogen fluoride. Nitrogen oxides.

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

urea (57-13-6) (57-13-6)	
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

potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg (Rat)
ATE US (oral)	2600.000 mg/kg bodyweight

sodium chloride (7647-14-5)	
LD50 oral rat	3000 mg/kg (Rat; Experimental value; 3550 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value)
ATE US (oral)	3000.000 mg/kg bodyweight

calcium sulfate (7778-18-9)	
LD50 oral rat	> 1584 mg/kg bodyweight (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)

iron(II,III)oxide (1317-61-9)	
LD50 oral rat	> 10000 mg/kg (Rat)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : May cause respiratory irritation.

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 inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

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Symptoms/injuries after eye contact : Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Monoammonium Phosphate (7722-76-1)	
LC50 fish 1	155 ppm (96 h; Pimephales promelas)
urea (57-13-6) (57-13-6)	
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)
potassium chloride (7447-40-7)	
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)
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)
sodium chloride (7647-14-5)	
LC50 fish 1	11100 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	1000 mg/l (48 h; Daphnia magna)
LC50 fish 2	5840 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	340.7 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	4967 mg/l (72 h; Algae; Inhibitory)
Threshold limit algae 2	2430 mg/l (120 h; Algae)
calcium sulfate (7778-18-9)	
LC50 fish 1	2980 mg/l (96 h; Lepomis macrochirus)
LC50 fish 2	> 56000 mg/l (96 h; Gambusia affinis)
iron(II,III)oxide (1317-61-9)	
LC50 fish 1	> 1000 mg/l (48 h; Leuciscus idus)

12.2. Persistence and degradability

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Persistence and degradability	Not established.
Monoammonium Phosphate (7722-76-1)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
urea (57-13-6) (57-13-6)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O ₂ /g substance
POLYOXYMETHYLENE UREA (68611-64-3)	
Persistence and degradability	Not established.
Water (7732-18-5)	
Persistence and degradability	Not established.
biuret (108-19-0)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
potassium chloride (7447-40-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.

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potassium chloride (7447-40-7)	
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

calcium sulfate (7778-18-9)	
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

iron(II,III)oxide (1317-61-9)	
Persistence and degradability	Biodegradability in water: no data available. Adsorbs into the soil. Not established.

Proprietary	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

Monoammonium Phosphate (7722-76-1)	
Bioaccumulative potential	Not bioaccumulative. Not established.

urea (57-13-6) (57-13-6)	
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.

POLYOXYMETHYLENE UREA (68611-64-3)	
Bioaccumulative potential	Not established.

Water (7732-18-5)	
Bioaccumulative potential	Not established.

biuret (108-19-0)	
Log Pow	-1.4 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

potassium chloride (7447-40-7)	
Log Pow	-0.46 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

sodium chloride (7647-14-5)	
Log Pow	-3.0 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

calcium sulfate (7778-18-9)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

iron(II,III)oxide (1317-61-9)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

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Proprietary

Bioaccumulative potential	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

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:

Proprietary	CAS No	<= 3.025%
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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.

POLYOXYMETHYLENE UREA (68611-64-3)

EPA Labeling Requirements	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
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biuret (108-19-0)

EPA Labeling Requirements	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA
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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

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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

calcium sulfate (7778-18-9)

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

SECTION 16: Other information

Other information : None.

Full text of H-statements:

H315	Causes skin irritation
H319	Causes serious eye 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.