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	: Super K 12-2-12 with UMAXX
Product code	: M77833
1.2. Recommended use and restrictions of	on use
No additional information available	
1.3. Supplier	
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 mi	viuro.
GHS-US classification Acute toxicity (oral). H302	Harmful if swallowed
Acute toxicity (oral), H302 Category 4	Harmurin Swallowed
Skin corrosion/irritation, H315	Causes skin irritation
Category 2 Serious eye damage/eye H320	Causes eye irritation
irritation, Category 2B	
Full text of H statements : see section 16	
2.2. GHS Label elements, including preca	utionary statements
GHS-US labelling	
Hazard pictograms (GHS-US)	
Signal word (GHS-US)	: Warning
C ()	0
Signal word (GHS-US) Hazard statements (GHS-US)	: H302 - Harmful if swallowed H315 - Causes skin irritation
Hazard statements (GHS-US)	: H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation
C ()	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell P302+P352 - If on skin: Wash with plenty of water/
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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 supplemental first aid instruction on this label) P330 - Rinse mouth
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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 supplemental first aid instruction on this label) P330 - Rinse mouth P332+P313 - If skin irritation occurs: Get medical attention
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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 supplemental first aid instruction on this label) P330 - Rinse mouth P332+P313 - If skin irritation occurs: Get medical attention P337+P313 - If see irritation persists: Get medical attention
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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 supplemental first aid instruction on this label) P330 - Rinse mouth P332+P313 - If skin irritation occurs: Get medical attention
Hazard statements (GHS-US)	 H302 - Harmful if swallowed H315 - Causes skin irritation H320 - Causes eye irritation P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P312 - If swallowed: Call a poison center/doctor/ if you feel unwell 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 supplemental first aid instruction on this label) P330 - Rinse mouth 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 P501 - Dispose of contents/container to

No additional information available

Unknown acute toxicity (GHS US) 2.4.

Not applicable

Safety Data Sheet

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable 3.2. Mixture

J.Z. MIALUIG			
Name	Product identifier	%	GHS-US classification
Proprietary			Not classified
potassium thiosulphate, conc=50%, aqueous solution	(CAS No) 10294-66-3		Not classified
tetrapotassium pyrophosphate, anhydrous	(CAS No) 7320-34-5		Not classified
citric acid	(CAS No) 77-92-9		Skin Irrit. 2, H315 Eye Irrit. 2A, H319
iron(II) sulfate, heptahydrate	(CAS No) 7782-63-0		Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315

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	: Remove person to fresh air and keep comfortable for breathing. 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. Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effect	ts (acute and delayed)	
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.	
Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.	
4.3. Immediate medical attention and spe	ecial treatment, if necessary	
Treat symptomatically.		
SECTION 5: Fire-fighting measures		
5.1. Suitable (and unsuitable) extinguish	ing media	
Suitable extinguishing media	: Sand. Water spray. Dry powder. Foam. Carbon dioxide.	

Unsuita	able extinguishing media	: Do not use a heavy water stream.
5.2.	Specific hazards arising from the c	hemical
Reactiv	<i>v</i> ity	: The product is non-reactive under normal conditions of use, storage and transport.
5.3.	Special protective equipment and p	precautions for fire-fighters
Firefigh	nting instructions	 Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protect	ion during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTIO	ON 6: Accidental release measu	Ires	
6.1.	Personal precautions, protective equi	pment and emergency procedures	
	For non-emergency personnel cy procedures	: Ventilate spillage area. Evacuate unnecessary personnel.	
6.1.2.	For emergency responders		
Protective	equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".	1
Emergeno	cy procedures	: Ventilate area.	
09/27/2017	,	EN (English)	2/8

Safety Data Sheet

6.2. Environmental precauti	ons	
Avoid release to the environment. F	Prevent entry to sewers and public waters	. Notify authorities if liquid enters sewers or public waters.
5.3. Methods and material for	or containment and cleaning up	
Nethods for cleaning up		absorbent material. Soak up spills with inert solids, such as clay or soon as possible. Collect spillage. Store away from other materials.
Other information	: Dispose of materials or	solid residues at an authorized site.
6.4. Reference to other sect	ions	
See Heading 8. Exposure controls	and personal protection. For further inform	nation refer to section 13.
SECTION 7: Handling and	storage	
7.1. Precautions for safe ha	ndling	
Precautions for safe handling	and other exposed area	of the work station. Wear personal protective equipment. Wash hands s with mild soap and water before eating, drinking or smoking and vide good ventilation in process area to prevent formation of vapour.
Hygiene measures	: Do not eat, drink or smo product.	ke when using this product. Always wash hands after handling the
7.2. Conditions for safe stor	rage, including any incompatibilities	
Storage conditions		l container in a cool, well ventilated place away from : Keep container Store in a well-ventilated place. Keep cool.
Incompatible products	: Strong bases. Strong ac	ids.
ncompatible materials	: Sources of ignition. Dire	ct sunlight.
Storage temperature	: >= 25 (5 - 42) °C	
SECTION 8: Exposure con	trols/personal protection	
3.1. Control parameters		
citric acid (77-92-9)		
Not applicable		
iron(II) sulfate, heptahydrate (77	782-63-0)	
	CGIH TWA (mg/m ³)	1 mg/m ³
		-
ACGIH A	anhydrous (7320-34-5)	
ACGIH A tetrapotassium pyrophosphate	, anhydrous (7320-34-5)	
ACGIH A	, anhydrous (7320-34-5)	

8.2. Appropriate engineering controls

: Ensure good ventilation of the work station.

Environmental exposure controls

Appropriate engineering controls

: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Not applicable

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Safety Data Sheet

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

Wear appropriate mask

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical r	properties	
SECTION 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties		
Physical state	: Liquid : Green	
Colour		
Odour	: Characteristic odour	
Odour threshold	: No data available	
pH	: >= 7.5	
Melting point	: Not applicable	
Freezing point	: <= 0 °C	
Boiling point	: >= 100 °C	
Flash point	: None	
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	: >= 1.28 g/ml	
Solubility	: Soluble in 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		
VOC content	: <= 10 g/l	
SECTION 10: Stability and reactivity		
10.1. Reactivity		
The product is non-reactive under normal conditi	ions of use, storage and transport.	
10.2. Chemical stability		
Not established.		
10.3. Possibility of hazardous reactions		
Not established.		
10.4. Conditions to avoid		
Direct sunlight. Extremely high or low temperature	res.	
10.5. Incompatible materials		
Strong acids. Strong bases.		
10.6. Hazardous decomposition products		
fume. Carbon monoxide. Carbon dioxide.		
SECTION 11: Toxicological informat	ion	
11.1. Information on toxicological effects		
Acute toxicity	: Oral: Harmful if swallowed.	

Safety Data Sheet

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

	-
Super K 12-2-12 with UMAXX	
ATE US (oral)	500 mg/kg bodyweight
citric acid (77-92-9)	
LD50 oral rat	3000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 11700 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	3000 mg/kg bodyweight
iron(II) sulfate, heptahydrate (7782-63-0)	
LD50 oral rat	1480 mg/kg (Rat)
ATE US (oral)	1480 mg/kg bodyweight
tetrapotassium pyrophosphate, anhydrous	(7320-34-5)
LD50 dermal rabbit	> 4640 mg/kg (Rabbit)
potassium thiosulphate, conc=50%, aqueou	us solution (10294-66-3)
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
Skin corrosion/irritation	: Causes skin irritation.
	pH: >= 7.5
Serious eye damage/irritation	: Causes eye irritation.
	pH: >= 7.5
Respiratory or skin sensitisation	: 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
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries	: Not expected to present a significant hazard under anticipated conditions of normal use.
SECTION 12: Ecological information	
12.1. Toxicity	

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
citric acid (77-92-9)	
LC50 fish 1	2600 mg/l (48 h; Leuciscus idus; pH = 7)
EC50 Daphnia 1	120 mg/l (72 h; Daphnia magna; pH < 7)
LC50 fish 2	1516 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	85 mg/l (Daphnia magna)
Threshold limit algae 1	80 mg/l (192 h; Microcystis aeruginosa; Reproduction)
Threshold limit algae 2	640 mg/l (168 h; Scenedesmus quadricauda)
iron(II) sulfate, heptahydrate (7782-63-0)	
LC50 fish 1	925 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 1	7.2 mg/l (48 h; Daphnia magna; Metal ion)
LC50 fish 2	> 200 mg/l (48 h; Leuciscus idus)
EC50 Daphnia 2	152 mg/l (48 h; Daphnia magna; Anhydrous form)

Safety Data Sheet

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

tetrapotassium pyrophosphate, anhydro LC50 fish 1	bus (7320-34-5) > 750 mg/l (48 h; Leuciscus idus)	
potassium thiosulphate, conc=50%, aqueous solution (10294-66-3)		
LC50 fish 1	> 1000 mg/l (96 h; Cyprinodon variegatus)	
2.2. Persistence and degradability		
Super K 12-2-12 with UMAXX		
Persistence and degradability	Not established.	
citric acid (77-92-9)		
Persistence and degradability Biochemical oxygen demand (BOD)	Readily biodegradable in water. Biodegradable in the soil. Not established.	
	0.42 g O₂/g substance	
Chemical oxygen demand (COD)	0.728 g O₂/g substance	
ThOD	0.686 g O₂/g substance	
BOD (% of ThOD)	(20 day(s)) 0.89	
iron(II) sulfate, heptahydrate (7782-63-0)		
Persistence and degradability	Biodegradability in water: no data available. Biodegradability in soil: no data available. Adsorbs into the soil. Not established.	
tetrapotassium pyrophosphate, anhydro		
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	
Proprietary		
Persistence and degradability	Not established.	
potassium thiosulphate, conc=50%, aqueous solution (10294-66-3)		
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	
2.3. Bioaccumulative potential		
Super K 12-2-12 with UMAXX		
Bioaccumulative potential	Not established.	
citric acid (77-92-9)		
Log Pow	-1.72 (Experimental value)	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.	
iron(II) sulfate, heptahydrate (7782-63-0) Bioaccumulative potential	Not bioaccumulative. Not established.	
tetrapotassium pyrophosphate, anhydro		
Bioaccumulative potential	Bioaccumulation: not applicable.	
Proprietary		
Bioaccumulative potential	Not established.	
potassium thiosulphate, conc=50%, aqu		
Bioaccumulative potential	No bioaccumulation data available. Not established.	
2.4. Mobility in soil		
No additional information available		

No additional information available

Safety Data Sheet

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

12.5. Other adverse effects	
Effect on the global warming GWPmix comment	No known effects from this product.No known effects from this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations		
13.1. Disposal methods		
Waste treatment methods Product/Packaging disposal recommendations	Dispose of contents/container in accordance with licensed collector's sorting instructions.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

Other information

: No supplementary information available.

TDG

Transport by sea

Air transport

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 %	iron(II) sulfate, heptahydrate	CAS No 7782-63-0	%
	Proprietary	CAS No	

iron(II) sulfate, heptahydrate (7782-63-0)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

No additional information available

Proprietary Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

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

Safety Data Sheet

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

iron(II) sulfate, heptahydrate (7782-63-0)	
U.S Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other Information	1
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

OTION 40

04

:	None.

Full text of H-statements:

i un	text of 11 statements.	
	H302	Harmful if swallowed
	H315	Causes skin irritation
	H319	Causes serious eye irritation
	H320	Causes eye irritation
NFF	A health hazard	: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
NFF	A fire hazard	: 0 - Materials that will not burn.
NFF	A reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
NFF	A specific hazard	: None
нмі	S III Rating	•
Hea	lth	: 0 Minimal Hazard - No significant risk to health
Flan	nmability	: 0 Minimal Hazard - Materials that will not burn
Phy	sical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Pers	sonal Protection	: C
		C - Safety glasses, Gloves, Synthetic apron

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.