Safety Data Sheet

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

SECTION 1: Identification

Identification

Product form : Mixture

Product name Super K 12-2-12 with UMAXX

Product code M77833

Recommended use and restrictions on use

No additional information available

Supplier

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

Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), H302 Harmful if swallowed

Category 4

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

GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal word (GHS-US) : Warning

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 Precautionary statements (GHS-US)

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 ...

Other hazards which do not result in classification

No additional information available

Unknown acute toxicity (GHS US)

Not applicable

09/27/2017 EN (English) Page 1

Safety Data Sheet

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

SECTION 3: Composition/information on ingredients

Substance

Not applicable

3.2. **Mixture**

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

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 eve 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.

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/injuries

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

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

: Sand. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

Specific hazards arising from the chemical 5.2.

Reactivity

: The product is non-reactive under normal conditions of use, storage and transport.

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 environment.

Protection 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.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures 6.1.

6.1.1. For non-emergency personnel

Emergency procedures

: Ventilate spillage area. Evacuate unnecessary personnel.

For emergency responders 6.1.2.

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".

Emergency procedures Ventilate area.

09/27/2017 EN (English) 2/8

Safety Data Sheet

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

6.2. Environmental precautions

Avoid release to the environment. 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 : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as 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 sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. 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.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

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. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : $>= 25 (5 - 42) ^{\circ}C$

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

citric acid (77-92-9)			
Not applicable			

iron(II) sulfate, heptahydrate (7782-63-0)

ACGIH ACGIH TWA (mg/m³) 1 mg/m³

tetrapotassium pyrophosphate, anhydrous (7320-34-5)

Not applicable

Proprietary

Not applicable

potassium thiosulphate, conc=50%, aqueous solution (10294-66-3)

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

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

09/27/2017 EN (English) 3/8

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 properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : Green

Odour : Characteristic odour Odour threshold : No data available

 $\begin{array}{llll} \text{pH} & : & >= 7.5 \\ \text{Melting point} & : & \text{Not applicable} \\ \text{Freezing point} & : & <= 0 \, ^{\circ}\text{C} \\ \text{Boiling point} & : & >= 100 \, ^{\circ}\text{C} \\ \text{Flash point} & : & \text{None} \\ \end{array}$

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 : No data available Auto-ignition temperature 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 conditions 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 temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

09/27/2017 EN (English) 4/8

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	ıs 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

1	2.1	To	ixc	cit	v

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)	

09/27/2017 EN (English) 5/8

tetrapotassium pyrophosphate, anhydrous (7320-34-5)

Safety Data Sheet

Bioaccumulative potential

12.4. Mobility in soilNo additional information available

LC50 fish 1

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

2000 11011 1	r readings (rest, personal read)
potassium thiosulphate, conc=50%, aqueou	s 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	Readily biodegradable in water. Biodegradable in the soil. Not established.
Biochemical oxygen demand (BOD)	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, anhydrous (7320-34-5)
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%, aqueou	s 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, anhydrous (7320-34-5)
Bioaccumulative potential	Bioaccumulation: not applicable.
Proprietary	
Bioaccumulative potential	Not established.
<u> </u>	

> 750 mg/l (48 h; Leuciscus idus)

09/27/2017 EN (English) 6/8

No bioaccumulation data available. Not established.

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 : No known effects from this product.

GWPmix comment : No known effects from this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging 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

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:

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

09/27/2017 EN (English) 7/8

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

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:

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard

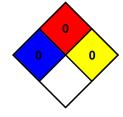
beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

NFPA specific hazard : None



HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health
Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 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.

Personal Protection : C

C - Safety glasses, Gloves, Synthetic apron

SDS US (GHS HazCom 2012)

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09/27/2017 EN (English) 8/8