

Simplot 27-4-14 Contains UFLEXX™ & 5% Iron

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 : Simplot 27-4-14 Contains UFLEXX™ & 5% Iron
Product code : M80191

1.2. Recommended use and restrictions 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 mixture

GHS-US classification

Serious eye damage/eye irritation Category 2B	H320	Causes eye irritation
Carcinogenicity Category 1A	H350	May cause cancer

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H320 - Causes eye irritation
H350 - May cause cancer

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to ...

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

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Name	Product identifier	%	GHS-US classification
urea (57-13-6)	(CAS No) 57-13-6		Eye Irrit. 2B, H320
iron(III) oxide	(CAS No) 1309-37-1		Not classified
diammoniumhydrogenphosphate	(CAS No) 7783-28-0		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
Dicyandiamide	(CAS No) 461-58-5		Eye Irrit. 2B, H320 STOT SE 3, H335
quartz	(CAS No) 14808-60-7		Eye Irrit. 2B, H320 Carc. 1A, H350 STOT SE 3, H335 STOT RE 2, H373
diatomaceous earth	(CAS No) 61790-53-2		Eye Irrit. 2B, H320 STOT SE 3, H335
1-methyl-2-pyrrolidone	(CAS No) 872-50-4		Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
N-(n-butyl)-thiophosphonic triamide	(CAS No) 94317-64-3		Eye Irrit. 2A, H319 Skin Sens. 1B, H317 Repr. 2, H361 STOT SE 3, H335
ammonium sulfate	(CAS No) 7783-20-2		Eye Irrit. 2B, H320 STOT SE 3, H335
Proprietary			Not classified

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Recover mechanically the product.

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Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Proprietary		
Not applicable		
quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 R
ammonium sulfate (7783-20-2)		
Not applicable		
urea (57-13-6) (57-13-6)		
Not applicable		
Dicyandiamide (461-58-5)		
Not applicable		
1-methyl-2-pyrrolidone (872-50-4)		
Not applicable		
N-(n-butyl)-thiophosphonic triamide (94317-64-3)		
Not applicable		
diatomaceous earth (61790-53-2)		
Not applicable		
diammoniumhydrogenphosphate (7783-28-0)		
Not applicable		
iron(III) oxide (1309-37-1)		
ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³

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:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colorless Light yellow to black Colourless to white White Colourless-white Unpurified: grey-brown No data available on colour Colourless to light yellow White to light grey Red-brown to black
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Odourless No data available on odour Amine-like odour Smell of fish Mild odour In moist air: Ammonia odour
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Specific gravity / density	: 59.8 LBS/ cu ft
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
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

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

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

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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ammonium sulfate (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	2840 mg/kg body weight
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 mg/kg body weight
Dicyandiamide (461-58-5)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 0.26 mg/l/4h (Rat)
1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	3914 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 4150 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	7000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	8000 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >5000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 5.1 mg/l/4h (Rat; Experimental value)
ATE US (oral)	3914 mg/kg body weight
ATE US (dermal)	7000 mg/kg body weight
N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
iron(III) oxide (1309-37-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
diatomaceous earth (61790-53-2)	
IARC group	3 - Not classifiable
iron(III) oxide (1309-37-1)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified

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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.

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

urea (57-13-6) (57-13-6)	
LC50 fish 1	> 6810 mg/l (96 h; <i>Leuciscus idus</i> ; Nominal concentration)
EC50 Daphnia 1	> 10000 mg/l (48 h; <i>Daphnia magna</i> ; Nominal concentration)
LC50 fish 2	17500 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 Daphnia 2	> 10000 mg/l (24 h; <i>Daphnia magna</i>)
TLM fish 1	17500 ppm (96 h; <i>Poecilia reticulata</i>)
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l (<i>Pseudomonas putida</i>)
Threshold limit algae 1	> 10000 mg/l (168 h; <i>Scenedesmus quadricauda</i> ; Growth rate)
Threshold limit algae 2	47 mg/l (192 h; <i>Microcystis aeruginosa</i> ; Growth rate)

Dicyandiamide (461-58-5)	
LC50 fish 1	7700 mg/l (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Cool water)
EC50 Daphnia 1	3177 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	7900 mg/l (96 h; Pisces)

1-methyl-2-pyrrolidone (872-50-4)	
LC50 fish 1	3048 mg/l (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Cool water)
EC50 Daphnia 1	4897 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	832 mg/l (96 h; <i>Lepomis macrochirus</i> ; Warm water)
EC50 Daphnia 2	4655 mg/l (<i>Gammarus</i> sp.)
Threshold limit algae 1	> 500 mg/l (<i>Scenedesmus subspicatus</i>)
Threshold limit algae 2	600.5 mg/l (72 h; <i>Desmodesmus subspicatus</i> ; Growth rate)

diammoniumhydrogenphosphate (7783-28-0)	
LC50 fish 1	155 ppm (96 h; <i>Pimephales promelas</i>)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h

iron(III) oxide (1309-37-1)	
LC50 fish 1	> 1000 mg/l (48 h; <i>Leuciscus idus</i> ; Nominal concentration)

12.2. Persistence and degradability

Proprietary	
Persistence and degradability	Not established.

quartz (14808-60-7)	
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

ammonium sulfate (7783-20-2)	
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.

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urea (57-13-6) (57-13-6)	
ThOD	0.27 g O ₂ /g substance
Dicyandiamide (461-58-5)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photodegradation in the air. Not established.
BOD (% of ThOD)	0.022 % ThOD
1-methyl-2-pyrrolidone (872-50-4)	
Persistence and degradability	Readily biodegradable in water. Inherently biodegradable. Biodegradable in the soil. Photodegradation in the air. Not established.
Biochemical oxygen demand (BOD)	1.07 g O ₂ /g substance
Chemical oxygen demand (COD)	1.56 g O ₂ /g substance
ThOD	1.9 g O ₂ /g substance
BOD (% of ThOD)	0.56 % ThOD
N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
Persistence and degradability	Not established.
diatomaceous earth (61790-53-2)	
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
diammoniumhydrogenphosphate (7783-28-0)	
Persistence and degradability	Biodegradability in water: no data available. Not established.
iron(III) oxide (1309-37-1)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Proprietary	
Bioaccumulative potential	Not established.
quartz (14808-60-7)	
Log Pow	Not applicable
Bioaccumulative potential	No bioaccumulation data available. Not established.
ammonium sulfate (7783-20-2)	
Log Pow	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. 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.
Dicyandiamide (461-58-5)	
BCF fish 1	< 3.1 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow	-1.5 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

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1-methyl-2-pyrrolidone (872-50-4)	
Log Pow	-0.73 - -0.46 (Experimental value)
Bioaccumulative potential	Not bioaccumulative. Not established.
N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
Bioaccumulative potential	Not established.
diatomaceous earth (61790-53-2)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
diammoniumhydrogenphosphate (7783-28-0)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
iron(III) oxide (1309-37-1)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

12.4. Mobility in soil

1-methyl-2-pyrrolidone (872-50-4)	
Surface tension	0.407 N/m

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

TDG

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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	%
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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1-methyl-2-pyrrolidone	CAS No 872-50-4	%
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15.2. International regulations

CANADA

Proprietary

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

ammonium sulfate (7783-20-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

1-methyl-2-pyrrolidone (872-50-4)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)	Maximum Allowable Dose Limit (MADL)
No	Yes	No	No		

quartz (14808-60-7)

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

1-methyl-2-pyrrolidone (872-50-4)

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

diatomaceous earth (61790-53-2)

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

iron(III) oxide (1309-37-1)

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

SECTION 16: Other information

Full text of H-phrases:

H227	Combustible liquid
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

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SDS US (GHS HazCom 2012)

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