

# Best 46-0-0 UFLEXX

## 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 : Best 46-0-0 UFLEXX  
Product code : M11028

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

No additional information available

#### 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

Eye Irrit. 2B H320 - Causes eye irritation

Full text of H-statements: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H320 - Causes eye irritation  
Precautionary statements (GHS-US) : P264 - Wash ... thoroughly after handling  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337+P313 - If eye irritation persists: Get medical attention

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

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Name	Product identifier	%	GHS-US classification
urea (57-13-6)	(CAS No) 57-13-6		Eye Irrit. 2B, H320
Dicyandiamide	(CAS No) 461-58-5		Eye Irrit. 2B, H320 STOT SE 3, H335
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

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 : 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.
- 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.
- 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 eye contact : Causes 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.

#### 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.

##### 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.

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### 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.

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

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.  
Hand protection : Wear protective gloves.  
Eye protection : Chemical goggles or safety glasses.  
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 : Turquoise Blue granules.  
Colour : Turquoise Blue  
Odour : No data available on odour  
Odour threshold : No data available  
pH : 7.2  
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  
Solubility : Soluble.  
Water: Solubility in water of component(s) of the mixture :  
• Dicyandiamide: 3.2 g/100ml • 1-methyl-2-pyrrolidone: Complete • diatomaceous earth:  
insoluble • urea (57-13-6): 100 g/100ml  
Log Pow : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : 135 °C  
Viscosity : No data available  
Viscosity, kinematic : No data available

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Viscosity, dynamic : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable.

### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight.

### 10.5. Incompatible materials

Acids. Oxidizing agent. reducing agents. Strong bases.

### 10.6. Hazardous decomposition products

Thermal decomposition will produce oxides of carbon, nitrogen, and sulfur. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Dicyandiamide (461-58-5)</b>	
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)
<b>1-methyl-2-pyrrolidone (872-50-4)</b>	
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)	3914.000 mg/kg bodyweight
ATE US (dermal)	7000.000 mg/kg bodyweight
<b>N-(n-butyl)-thiophosphonic triamide (94317-64-3)</b>	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
<b>urea (57-13-6) (57-13-6)</b>	
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

Skin corrosion/irritation : Not classified

pH: 7.2

Serious eye damage/irritation : Causes eye irritation.

pH: 7.2

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

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<b>diatomaceous earth (61790-53-2)</b>	
IARC group	3 - Not classifiable

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 after eye contact	: Causes eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Dicyandiamide (461-58-5)</b>	
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)

<b>1-methyl-2-pyrrolidone (872-50-4)</b>	
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)

<b>urea (57-13-6) (57-13-6)</b>	
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)

### 12.2. Persistence and degradability

<b>Best 46-0-0 UFLEXX</b>	
Persistence and degradability	Not established.

<b>Dicyandiamide (461-58-5)</b>	
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

<b>1-methyl-2-pyrrolidone (872-50-4)</b>	
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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.56 g O <sub>2</sub> /g substance
ThOD	1.9 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.56 % ThOD

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<b>N-(n-butyl)-thiophosphonic triamide (94317-64-3)</b>	
Persistence and degradability	Not established.
<b>diatomaceous earth (61790-53-2)</b>	
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
<b>urea (57-13-6) (57-13-6)</b>	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>Best 46-0-0 UFLEXX</b>	
Bioaccumulative potential	Not established.
<b>Dicyandiamide (461-58-5)</b>	
BCF fish 1	< 3.1 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow	-1.5 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>1-methyl-2-pyrrolidone (872-50-4)</b>	
Log Pow	-0.73 - -0.46 (Experimental value)
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>N-(n-butyl)-thiophosphonic triamide (94317-64-3)</b>	
Bioaccumulative potential	Not established.
<b>diatomaceous earth (61790-53-2)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>urea (57-13-6) (57-13-6)</b>	
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.

### 12.4. Mobility in soil

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

### 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

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### 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

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

Subject to reporting requirements of United States SARA Section 313

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

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)
No	Yes	No	No	

#### 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

## SECTION 16: Other information

Other information : None.

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### Full text of H-statements:

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Flam. Liq. 4	Flammable liquids, Category 4
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1B	Sensitisation — Skin, category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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
H361	Suspected of damaging fertility or the unborn child

### SDS US (GHS HazCom 2012)

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