

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : BEST 46-0-0 Mini UMAXX
 Product code : M11029

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilizer

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 2 H319 Causes serious eye irritation.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H319 - Causes serious eye irritation.

Precautionary statements (GHS US) :

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.
 P337+P313 - If eye irritation persists: Get medical attention

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

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

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Name	Product identifier	%	GHS-US classification
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 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 affected person to breathe 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 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- 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 effects (acute and delayed)

- Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects after eye contact : Causes eye irritation. Eye irritation.

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 : Carbon dioxide. Sand. Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. 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 the 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

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes.

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".
- Emergency procedures : Ventilate area.

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.

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6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. 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. 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 contact with skin and eyes. 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 : 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
Dicyandiamide (461-58-5)
No additional information available
N-(n-butyl)-thiophosphonic triamide (94317-64-3)
No additional information available
1-methyl-2-pyrrolidone (872-50-4)
No additional information available
diatomaceous earth (61790-53-2)
No additional information available
urea (57-13-6) (57-13-6)
No additional information available

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:

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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	: Turquoise Green
Odour	: 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: Odourless Amine-like odour Smell of fish Mild odour In moist air: Ammonia odour
Odour threshold	: No data available
pH	: 7.2
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
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
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: No data available
Oxidising 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.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Acids. Oxidizing agent. reducing agents. Strong bases.

10.6. Hazardous decomposition products

The product may release carbon, nitrogen, and sulfur. fume. Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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)

N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

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)

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)

Skin corrosion/irritation : Not classified
pH: 7.2
Serious eye damage/irritation : Causes serious eye irritation.
pH: 7.2
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

diatomaceous earth (61790-53-2)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Dicyandiamide (461-58-5)	
STOT-single exposure	May cause respiratory irritation.

N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
STOT-single exposure	May cause respiratory irritation.

1-methyl-2-pyrrolidone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.

diatomaceous earth (61790-53-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

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Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects after eye contact : Causes eye irritation. Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Dicyandiamide (461-58-5)	
LC50 fish 1	7700 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Cool water)
EC50 Daphnia 1	3177 mg/l (48 h; Daphnia magna)
LC50 fish 2	7900 mg/l (96 h; Pisces)
1-methyl-2-pyrrolidone (872-50-4)	
LC50 fish 1	3048 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Cool water)
EC50 Daphnia 1	4897 mg/l (48 h; Daphnia magna)
LC50 fish 2	832 mg/l (96 h; Lepomis macrochirus; Warm water)
EC50 Daphnia 2	4655 mg/l (Gammarus sp.)
Threshold limit algae 1	> 500 mg/l (Scenedesmus subspicatus)
Threshold limit algae 2	600.5 mg/l (72 h; Desmodesmus subspicatus; Growth rate)
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)

12.2. Persistence and degradability

BEST 46-0-0 Mini UMAXX	
Persistence and degradability	Not established.
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
N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
Persistence and degradability	Not established.
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
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

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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

12.3. Bioaccumulative potential

BEST 46-0-0 Mini UMAXX	
Bioaccumulative potential	Not established.
Dicyandiamide (461-58-5)	
BCF fish 1	< 3.1 (Cyprinus carpio; Test duration: 6 weeks)
Partition coefficient n-octanol/water (Log Pow)	-1.5 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
N-(n-butyl)-thiophosphonic triamide (94317-64-3)	
Bioaccumulative potential	Not established.
1-methyl-2-pyrrolidone (872-50-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.73 – -0.46 (Experimental value)
Bioaccumulative potential	Not bioaccumulative. Not established.
diatomaceous earth (61790-53-2)	
Bioaccumulative potential	No bioaccumulation data available. 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.)
Partition coefficient n-octanol/water (Log Pow)	< -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Bioaccumulation: not applicable. 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

Other information : Avoid unintentional 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 unintentional release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Air transport

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SECTION 15: Regulatory information

15.1. US Federal regulations

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Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Contains chemical(s) subject to TSCA 12b export notification if product is shipped outside the U.S

N-(n-butyl)-thiophosphonic triamide	CAS-No. 94317-64-3	%
1-methyl-2-pyrrolidone	CAS-No. 872-50-4	%

N-(n-butyl)-thiophosphonic triamide (94317-64-3)

EPA Labeling Requirements

PMN - PMN - indicates a commenced PMN substance.
S - S - indicates a substance that is identified in a final Significant New Use Rule.

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

EPA Labeling Requirements

R - R - indicates a substance that is the subject of a TSCA section 6 risk management rule.

15.2. International regulations

CANADA

Dicyandiamide (461-58-5)

Listed on the Canadian DSL (Domestic Substances List)

N-(n-butyl)-thiophosphonic triamide (94317-64-3)

Listed on the Canadian DSL (Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

diatomaceous earth (61790-53-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to 1-methyl-2-pyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
1-methyl-2-pyrrolidone(872-50-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
diatomaceous earth(61790-53-2)	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

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Revision date : 08/25/2021

Other information : None.

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Full text of H-statements:

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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