

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : BLUE 20-0-10
Product code : BLUE 20-0-10

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilisers
Recommended use : Fertilizers

1.3. Supplier

Manufacturer

Timac Agro USA, INC. Inc.
Route 724 & I-176
P.O. Box 888
Reading, PA 19607, PENNSYLVANIA
USA
T 1-800-545-5474
info-fds@roullier.com

Manufacturer

Rainbow Fertilizer LLC
1011 Oak Avenue
Americus, GA 31709, Georgia 31719
USA
T 1-800-763-0334
www.rainbowplantfood.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
Americas	3E		+1-760-476-3962 (Access code : 333021)	(24/7)
USA	USA POISON CONTROL CENTER (24h/7d)		1-800-222-1222	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Potassium chloride	Muriate of Potash / MOP	CAS-No.: 7447-40-7	10 – 25	Not classified
Urea		CAS-No.: 57-13-6	10 – 25	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 general	: If you feel unwell, seek medical advice. Prompt treatment is essential to minimize damage.
First-aid measures after inhalation	: Move to fresh air in case of accidental inhalation. Seek medical attention if ill effect develops.
First-aid measures after skin contact	: Wash off with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately, even if there are no immediate symptoms. If possible show him this sheet. Failing this, show him the packaging or label.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting without medical advice. Seek medical attention if ill effect develops.

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

Symptoms/effects : see section(s) : 2.1/2.3).

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, carbon dioxide (CO ₂), powder and foam. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None known.

5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Thermal decomposition generates : fume.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Complete protective clothing. EN 469. Self-contained breathing apparatus.

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Other information : Relevant water authorities should be notified of any large spillage to water course or drain.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Emergency procedures : Do not get in eyes, on skin, or on clothing. Do not breathe dust. Evacuate unnecessary personnel. Mark the danger area. Mechanically ventilate the spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.

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".

Emergency procedures : Ventilate area. Stop leak if safe to do so. Dike and contain spill.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Clean up immediately by sweeping or vacuum. Minimize generation of dust. Gather the product and place it in a spare container that has been suitably labeled.

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

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/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. Do not breathe dust. Avoid contact with skin and eyes. Use personal protective equipment as required. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin. Comply with applicable regulations.

Storage conditions : Store in dry, cool, well-ventilated area. Protect from moisture. Keep out of reach of children.

Incompatible products : Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Storage temperature : Store at ambient temperature

Heat-ignition : Keep away from open flames, hot surfaces and sources of ignition.

Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

Special rules on packaging : Keep only in original container. Store in a closed container.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
Potassium chloride (7447-40-7)	
USA - OSHA - Occupational Exposure Limits	
Local name	Total Dust (Inert or Nuisance Dust)
OSHA PEL (TWA) [1]	10 mg/m ³ (dust)
OSHA PEL (TWA) [2]	50 mppcf
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
Urea (57-13-6)	
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) [1]	5 mg/m ³ (dust)

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Local exhaust and general ventilation must be adequate to meet exposure standards.
Environmental exposure controls	: Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Assure that emissions are compliant with all applicable air pollution control regulations. Comply with applicable regulations.

8.3. Individual protection measures/Personal protective equipment

Eye protection:		
Safety glasses with side guards should be worn to prevent injury from airborne particles and/or other eye contact with this product		
Type	Field of application	Characteristics
Safety goggles	Dust	With side shields
Skin and body protection:		
Skin protection appropriate to the conditions of use should be provided. In case of repeated or prolonged contact wear gloves		
Type		
Gloves		
Respiratory protection:		
Where excessive dust may result, wear approved mask		
Device	Filter type	Condition
Dust mask	Type P2	Dust protection

Personal protective equipment symbol(s):



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Other information:

See Heading 7 : 7.1. Precautions for safe handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Granulate.
Color	: Gray light brown
Odor	: Odorless
Odor threshold	: No data available
pH	: 5.5 – 6
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 58 – 65 lb/ft ³
Solubility	: No data available
Partition coefficient n-octanol/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
Explosion limits	: No data available
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 use and storage conditions as recommended in section 7.

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

Strong acids. Strong bases. oxidizing agents (peroxides, chromates, dichromates). Reducing agents.

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In case of fire: See Heading 5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Potassium chloride (7447-40-7)

LD50 oral rat	2600 mg/kg body weight Safety Data Sheet Supplier
ATE US (oral)	2600 mg/kg body weight

Urea (57-13-6)

LD50 oral rat	> 2000 mg/kg
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Skin corrosion/irritation	: Not classified pH: 5.5 – 6
Serious eye damage/irritation	: Not classified pH: 5.5 – 6
Respiratory or skin sensitization	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met) No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

Urea (57-13-6)

NOAEL (oral,rat,90 days)	2250 mg/kg bodyweight/day
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Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met. No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation)
Viscosity, kinematic	: No data available
Symptoms/effects	: see section(s) : 2.1/2.3).

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation. Do not allow uncontrolled discharge of product into the environment.

Potassium chloride (7447-40-7)	
LC50 - Fish [1]	96h 2010 mg/l <i>Lepomis macrochirus</i>
EC50 - Crustacea [2]	337 – 825 mg/l
Urea (57-13-6)	
LC50 - Fish [1]	> 6810 mg/l <i>Leuciscus idus</i> (golden orfe)
EC50 - Crustacea [1]	> 10000 mg/l

12.2. Persistence and degradability

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Persistence and degradability	Not established.
Urea (57-13-6)	
Persistence and degradability	Readily biodegradable.
Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
Potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Low bioaccumulation potential. Data sources : Safety Data Sheet Supplier.
Urea (57-13-6)	
Partition coefficient n-octanol/water (Log Pow)	-1.73 (20°C)
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

Potassium chloride (7447-40-7)	
Ecology - soil	Low mobility (soil). Safety Data Sheet Supplier.
Urea (57-13-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-1.43 – -1.19

12.5. Other adverse effects

Other adverse effects : May cause eutrophication at very low concentration.
Other information : No other effects known.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Discharging into rivers and drains is forbidden.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT)	: Not applicable
Packing group (TDG)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

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IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Potassium chloride	7447-40-7	Present	Active	
Urea	57-13-6	Present	Active	

15.2. International regulations

CANADA

Potassium chloride (7447-40-7)

Listed on the Canadian DSL (Domestic Substances List)

Urea (57-13-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Ensure all national/local regulations are observed

Potassium chloride (7447-40-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Urea (57-13-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Data sources : Safety Data Sheet Supplier.

Abbreviations and acronyms

ATE	Acute Toxicity Estimate
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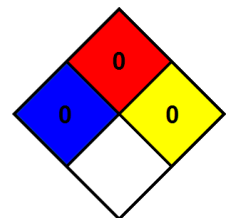
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Abbreviations and acronyms	
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
ED	Endocrine disrupting properties

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard 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 : E - Safety glasses, Gloves, Dust respirator

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.