



FBSCIENCES INC

Safety Data Sheet FourGround (FBS 1235)

SECTION 1: Identification

1.1 GHS Product identifier

Product name	FourGround (FBS 1235)
Product number	FBS 1235
Brand	FBSciences, Inc

1.3 Recommended use of the chemical and restrictions on use

Fertilizer

1.4 Supplier's details

Name	FBSciences Inc
Address	153 North Main Street Suite 100 Collierville TN 38017 USA
Telephone	901-221-1200

1.5 Emergency phone number

CHEMTREC 1-800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation (C.4.5), Cat. 1
- Skin corrosion/irritation (C.4.4), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



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Signal word

Danger

Hazard statement(s)

H315

Causes skin irritation

H318

Causes serious eye damage

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

Wear eye protection/face protection/protective gloves.

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.

P310

Immediately call a POISON CENTER/doctor/if feeling unwell.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component	Concentration
Zinc nitrate (CAS no.: 7779-88-6)	Not specified, Trade secret*
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
MANGANESE (II) NITRATE (CAS no.: 10377-66-9)	Not specified, Trade secret*
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
Water (CAS no.: 7732-18-5; EC no.: 231-791-2)	Not specified, Trade secret*

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Remove person to fresh air and keep comfortable for breathing.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Acute and delayed symptoms and effects: Causes serious eye damage.
Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

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If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed

Not expected to present a significant hazard under anticipated conditions of normal use. May cause eye damage. May produce skin irritation.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water spray. Dry powder. Foam. Carbon dioxide.

5.2 Specific hazards arising from the chemical

May intensify fire.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. MANGANESE (II) NITRATE (CAS: 10377-66-9)

8.2 Appropriate engineering controls

General industrial hygiene practice.

8.3 Individual protection measures, such as personal protective equipment (PPE)

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Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with protective gloves that are impervious to the chemical substance. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

In case of insufficient ventilation, wear A NIOSH certified respirator with APF>10, in accordance with OSHA respirator regulations found in 29 CFR 1910.134.

SECTION 9: Physical and chemical properties and safety characteristics

Physical state	Liquid
Appearance	liquid- dark
Color	brown
Odor	No data available.
Odor threshold	No data available.
pH	3.5-4.0
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	1.10-1.15 g/mL
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts with metallic powders.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

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10.4 Conditions to avoid

Heat, flames, and sparks.

10.5 Incompatible materials

May react with reducing agents and combustible materials at elevated temperatures.

10.6 Hazardous decomposition products

Zinc or zinc oxides, copper or copper oxides, manganese or manganese oxides, nitrogen or nitrogen oxides

Water: In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Not determined.

Skin corrosion/irritation

Causes skin burns.

Serious eye damage/irritation

Risk of serious damage to eyes.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

Based on available data, classification data are not met.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

STOT-single exposure

Causes damage to organs.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available.

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SECTION 12: Ecological information

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers in accordance with local/regional/federal guidelines. Must not be disposed with household waste.

SECTION 14: Transport information

DOT (US)

UN Number: UN1477

Class: 5.1

Packing Group: III

Proper Shipping Name: Nitrates, inorganic, n.o.s.

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

IMDG

UN Number: UN1477

Class: 5.1

Packing Group: III

EMS Number:

Proper Shipping Name: Nitrates, inorganic, n.o.s.

IATA

UN Number: UN1477

Class: 5.1

Packing Group: III

Proper Shipping Name: Nitrates, inorganic, n.o.s.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Domestic Substances List (DSL)

Chemical name: Nitric acid, zinc salt

CAS: 7779-88-6

Chemical name: Nitric acid, manganese(2++) salt

CAS: 10377-66-9

Chemical name: Water

CAS: 7732-18-5

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Massachusetts Right To Know Components

Chemical name: Zinc nitrate

CAS number: 7779-88-6

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Common name: ZINC NITRATE

CAS number: 7779-88-6

Water

CAS-No. 7732-18-5

Pennsylvania Right To Know Components

Chemical name: Nitric acid, zinc salt

CAS number: 7779-88-6

Water

CAS-No. 7732-18-5

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

No SARA Hazards

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SECTION 16: Other information

16.1 Further information/disclaimer

The directions for use of this product are believed to be adequate and must be followed carefully. The use of this product is beyond the control of the manufacturer, and, therefore, to the extent consistent with applicable law, no warranty, representation, or guarantee of any kind, expressed or implied, is made as to the effects of such use or any results obtained if not used in accordance with printed directions and established safe practice or if unusual or extraordinary weather conditions occur. To the extent consistent with applicable law, the buyer's exclusive remedy and manufacturer's or seller's exclusive liability in tort or otherwise, shall be limited, at the manufacturer's option, to replacement of, or the repayment of the purchase price for, the quantity of product with respect to which damages are claimed.

The information and recommendations contained herein are based upon data believed to be correct. However, there is no guarantee or warranty of any kind expressed or implied made with respect to the information contained herein.