



FBSCIENCES INC

Safety Data Sheet

FBS 1182

SECTION 1: Identification

1.1 Product identifier

Product name FBS 1182

Product number FBS 1182

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(s)

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. 1A

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

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Hazard statement(s)

H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/...
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to ...

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
Phosphorous acid (CAS no.: 10294-56-1; EC no.: 233-663-1; Index no.: 015-157-00-0) CLASSIFICATIONS: Acute toxicity, oral (C.4.1), Cat. 4; Skin corrosion/irritation (C.4.4), Cat. 1A; Corrosive to metals (C.4.29), Cat. 1; Eye damage/irritation (C.4.5), Cat. 1. HAZARDS: H302 - Harmful if swallowed; H314 - Causes severe skin burns and eye damage.	*
Phosphonic acid, zinc salt (1:1) (CAS no.: 14332-59-3) CLASSIFICATIONS: No data available. HAZARDS: No data available.	*
Phosphonic acid, manganese salt (1:1) (CAS no.: 22775-65-1) CLASSIFICATIONS: No data available. HAZARDS: No data available.	*
Iron(II) sulfate heptahydrate (CAS no.: 7782-63-0; EC no.: 231-753-5; Index no.: 026-003-01-4) CLASSIFICATIONS: Acute toxicity, oral (C.4.1), Cat. 4; Skin corrosion/irritation (C.4.4), Cat. 2; Serious eye damage/eye irritation (chapter 3.3), Cat. 2. HAZARDS: H302 - Harmful if swallowed; H315 - Causes skin irritation; H319 - Causes serious eye irritation.	*
Sodium molybdate (CAS no.: 7631-95-0; EC no.: 231-551-7) CLASSIFICATIONS: No data available. HAZARDS: No data available.	*
Cobalt (II) nitrate hexahydrate (CAS no.: 10026-22-9) CLASSIFICATIONS: No data available. HAZARDS: No data available.	*

Trade secret statement (OSHA 1910.1200(i))

*Exact percentage has been withheld as trade secret.

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. Move out of dangerous area.
If inhaled	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

Use extinguishing media appropriate for surrounding fire.

5.2 Specific hazards arising from the chemical

Carbon oxides

5.3 Special protective actions for fire-fighters

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

Wear respiratory protection. Avoid breathing vapors, 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 contact with skin and eyes. Avoid inhalation of vapors or mist. 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. Sodium molybdate (CAS: 7631-95-0 EC: 231-551-7)

TLV® (Inhalation): 0.5 mg/m³ (ACGIH)

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Lower Respiratory Tract irritation. Confirmed animal carcinogen with unknown relevance to humans

PEL-TWA (Inhalation): 0.5 mg/m³ (Cal/OSHA)

PEL-TWA (Inhalation): 5 mg/m³ (OSHA)

8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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

Eye/face protection

Tightly fitting safety goggles. Face shield (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 gloves. 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.

Body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Control banding approach

No data available.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)

liquid

Odor

No data available.

Odor threshold

No data available.

pH

<1.0

Melting point/freezing point

No data available.

Initial boiling point and boiling range

No data available.

Flash point

No data available.

Evaporation rate

No data available.

Flammability (solid, gas)

No data available.

Upper/lower flammability limits

No data available.

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Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	No data available.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

10.5 Incompatible materials

Phosphorous acid: Strong bases, Strong oxidizing agents, Strong reducing agents, Water, Metals

10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

ATE (oral) of mixture: 2083.33 mg/kg

Skin corrosion/irritation

Causes severe skin burns.

Serious eye damage/irritation

Risk of serious damage to eyes.

Respiratory or skin sensitization

No data available

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Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

Causes damage to organs.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal of the product

Dispose of contents/container in accordance with local, regional, national, and international regulations.

Disposal of contaminated packaging

Dispose in a safe manner in accordance with local/national regulations

Waste treatment

Dispose of contents/container in accordance with licensed collector's sorting instructions.

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Sewage disposal

Prevent liquid from entering sewers, watercourses, underground or low areas.

Other disposal recommendations

The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

DOT (US)

UN Number: UN2834

Class: 8

Packing Group: III

Proper Shipping Name: Phosphorous acid mixture

Reportable quantity (RQ):

Marine pollutant: yes

Poison inhalation hazard: No

IMDG

UN Number: UN2834

Class: 8

Packing Group: III

EMS Number: F-A, S-B

Proper Shipping Name: Phosphorous acid mixture

IATA

UN Number: UN2834

Class: 8

Packing Group: III

Proper Shipping Name: Phosphorous acid mixture

SECTION 15: Regulatory information

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

Canadian Domestic Substances List (DSL)

Chemical name: Phosphorous acid

CAS: 10294-56-1

Chemical name: Sulfuric acid, iron(2++) salt (1:1)

CAS: 7720-78-7

Chemical name: Molybdate (MoO_4^{2-}), disodium, ($\beta\text{-4}$)-

CAS: 7631-95-0

Chemical name: Molybdenum sodium oxide

CAS: 12680-49-8

Canadian Non-Domestic Substances List (NDSL)

Chemical name: Phosphonic acid, zinc salt (1:1)

CAS: 14332-59-3

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Massachusetts Right To Know Components

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

Pennsylvania Right To Know Components

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

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.