



FULCRUM ENTERPRISES

Safety Data Sheet Ortho 3-18-18

SECTION 1: Identification

1.1 Product identifier

Product name Ortho 3-18-18

1.2 Recommended use of the chemical and restrictions on use

Liquid Fertilizer

1.3 Supplier's details

Name Fulcrum Enterprises
Address 5015 NW Canal St Suite 103
Riverside MO 64150

Telephone 731-784-0605

1.4 Emergency phone number(s)

Chemtrec 800-262-8200 Customer Number CCN840117

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

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

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302 Harmful if swallowed
H332 Harmful if inhaled

Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

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P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor/...if you feel unwell,
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/...
P312	Call a POISON CENTER/doctor/.../ if you feel unwell.
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to ...

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Hazardous components

1. UREA

Concentration	Not specified
CAS no.	57-13-6

2. Ammonia gas

Concentration	10 % (weight)
EC no.	231-635-3
CAS no.	7664-41-7
Index no.	007-001-00-5

- Flammable gases, Cat. 2
- Press. Gas
- Acute toxicity, Cat. 3
- Skin corrosion/irritation, Cat. 1B
- Hazardous to the aquatic environment, short-term (acute), Cat. 1

H221	Flammable gas
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H400	Very toxic to aquatic life

3. Potassium hydroxide

Concentration	Not specified
EC no.	215-181-3
CAS no.	1310-58-3
Index no.	019-002-00-8

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- Skin corrosion/irritation, Cat. 1A
- Acute toxicity, oral, Cat. 4

H302
H314

Harmful if swallowed
Causes severe skin burns and eye damage

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air. If breathing becomes difficult, contact a medical physician. Give artificial respiration if victim is not breathing and obtain immediate medical attention.
In case of skin contact	Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical attention if skin becomes irritated.
In case of eye contact	Flush immediately with water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Call a physician if eye irritation persists.
If swallowed	Call physician or Poison Control Center immediately for most current information. Dilute with large amounts of water. Do not induce vomiting unless directed to do so by a medical professional. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. If vomiting occurs, keep head lower than hips to prevent introduction of fluid into the lungs.

4.2 Most important symptoms/effects, acute and delayed

Eyes: May cause inflammation, redness, and possible damage with prolonged exposure.

Skin: Prolonged or repeated exposure may cause skin ulcerations and /or burns.

Inhalation: It may cause headaches, nausea, or weakness in case of prolonged exposure. Oxygen can be administered if breathing becomes difficult.

Ingestion: May result in nausea, vomiting, diarrhea.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water spray, Foam, Carbon Dioxide, Dry-Chemical.

5.2 Specific hazards arising from the chemical

Avoid high temperatures that may cause thermal decomposition or explosion, especially in confined or poorly ventilated spaces.

5.3 Special protective actions for fire-fighters

Wear positive pressure, self-contained breathing apparatus (SCBA) and goggles. Avoid exposure to smoke or fumes. Contain any liquid runoff.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For small or incidental spills, the minimum personal protective equipment should be rubber gloves, rubber apron, and chemical goggles. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Gas masks with ammonia canister or SCBA gear may be required. For large spills, contain by diking with soil or other non-combustible absorbent material. Dilution with

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water will reduce the release of ammonia vapors. Keep material out of sewers, storm drains, and surface waters. Comply with all applicable government regulations on spill reporting, handling, and waste disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from incompatible materials. Do not breathe mists. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Wash with soap and water after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store out of direct sunlight (above 45F and below 120F) in a dry, well-ventilated area. This product should be stored in tanks constructed of stainless steel, fiberglass, polypropylene, or polyethylene. Valves should be inspected on a regular basis and replaced as needed to prevent leakage.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Ammonia (CAS: 7664-41-7)

PEL (Inhalation): 50 ppm (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 35 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 25 ppm, (ST) 35 ppm (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 25 ppm, (ST) 35 ppm (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

2. Potassium hydroxide (CAS: 1310-58-3 EC: 215-181-3)

PEL-C (Inhalation): 2 mg/m³; USA (ACGIH)

Upper Respiratory Tract irritation, Eye irritation, Skin irritation

PEL-C (Inhalation): 2 mg/m³; USA (ACGIH)

Upper Respiratory Tract irritation, Eye irritation, Skin irritation

PEL-C (Inhalation): 2 mg/m³; USA (NIOSH)

PEL-C (Inhalation): 2 mg/m³; USA (Cal/OSHA)

8.2 Appropriate engineering controls

Use with adequate ventilation to keep airborne levels below recommended exposure limits.

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

Eye/face protection

Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, contact lenses should not be worn when working with chemicals because they contribute to the severity of an eye injury.

Skin protection

Rubber gloves with gauntlets.

Body protection

Use body protection appropriate for task. Chemical-resistant coveralls and rubber aprons are generally acceptable.

Respiratory protection

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If work conditions generate vapors or mist, wear a NIOSH approved respirator appropriate for those emission levels. Appropriate respirator may be a full facepiece respirator, an SCBA in the pressure demand mode, or a supplied-air respirator.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	clear liquid
Odor	none
Odor threshold	NA
pH	
Melting point/freezing point	32F
Initial boiling point and boiling range	212F
Flash point	NA
Evaporation rate	NA
Flammability (solid, gas)	NA
Upper/lower flammability limits	NA
Vapor pressure	NA
Vapor density	NA
Relative density	11.7 lbs/gal
Solubility(ies)	NA
Partition coefficient: n-octanol/water	NA
Auto-ignition temperature	NA
Decomposition temperature	NA
Viscosity	NA
Explosive properties	NA
Oxidizing properties	NA

SECTION 10: Stability and reactivity

10.1 Chemical stability

stable under normal conditions and pressure

10.2 Incompatible materials

Potassium hydroxide: Nitro compounds, Organic materials, Magnesium, Copper, Water, reacts violently with: Metals, Light metals, Contact with aluminum, tin and zinc liberates hydrogen gas. Contact with nitromethane and other similar nitro compounds causes formation of shock-sensitive salts., vigorous reaction with: Alkali metals, Halogens, Azides, Anhydrides

10.3 Hazardous decomposition products

Potassium hydroxide: Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Potassium oxides
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

// ----- From the Suggestion report (10/18/2019, 8:14 AM) ----- //

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ATE (dermal) of mixture: 3000 mg/kg

// ----- From the Suggestion report (10/18/2019, 8:14 AM) ----- //
ATE (inhalation, gaseous) of mixture: 7000 ppmv

// ----- From the Suggestion report (10/18/2019, 8:14 AM) ----- //
ATE (inhalation, vapor) of mixture: 30 mg/l

// ----- From the Suggestion report (10/18/2019, 8:14 AM) ----- //
ATE (oral) of mixture: 1000 mg/kg

Skin corrosion/irritation

Moderate irritant, especially with prolonged exposure.

Serious eye damage/irritation

Moderate irritant. May cause redness, burning, inflammation, and/or damage.

Respiratory or skin sensitization

May cause irritation to mucous membranes, coughing, or breathing difficulties. If exposed to decomposition gases remove from area immediately.

SECTION 12: Ecological information

Toxicity

May be harmful to fish, livestock, and wildlife. Dissolved mineral salts may cause irritation of the digestive tract. Non-persistent. Non-cumulative when applied using normal agricultural practices.

SECTION 13: Disposal considerations

Disposal of the product

Do not contaminate lakes, streams, ponds, estuaries, oceans, or other waters by discharge of waste effluents or equipment rinsate. Dispose of waste effluents according to federal, state, and local regulations. Chemical additions or other alterations of this product may invalidate any disposal information in this SDS.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

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

Massachusetts Right To Know Components

Chemical name: Ammonia

CAS number: 7664-41-7

Potassium hydroxide

CAS-No. 1310-58-3

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New Jersey Right To Know Components

Common name: AMMONIA

CAS number: 7664-41-7

Potassium hydroxide

CAS-No. 1310-58-3

Pennsylvania Right To Know Components

Chemical name: Ammonia

CAS number: 7664-41-7

Potassium hydroxide

CAS-No. 1310-58-3

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.

SARA 302 Components

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

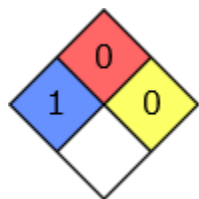
SARA 313 Components

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.

SARA 311/312 Hazards

Acute Health Hazard

NFPA Rating



SECTION 16: Other information

The information and recommendations herein are taken from data contained in independent, industry recognized references including NIOSH, OSHA, ANSI, and NFPA. This information is, as of date listed above, true and accurate to the best of Fulcrum Enterprises knowledge. It is intended for use by persons possessing technical knowledge and at their own discretion and risk. Since actual use is beyond our control, no guarantee, express or implied, and no liability is assumed by Fulcrum Enterprises in conjunction with the use of this information. Actual conditions of use and handling may require consideration of information other than, or in addition to, that which is provided herein.