



# 18-2-4 with 25% XCU, 23% AMS, Biosolids with Armament

SAFETY DATA SHEET  
REVISION DATE: 3/10/2022

## SECTION 1: PRODUCT AND MANUFACTURER INFORMATION

### Name: 18-2-4 with 25% XCU, 23% AMS, Biosolids with Armament

Recommended Use: Turfgrass Fertilizer

Manufacturer: Morral Companies, LLC; P.O. Box 26, Morral OH 43337. Phone: 740-465-3251

For Transportation Emergencies call Chemtrec at 800-424-9300

For Other Emergencies call 911 and/or Appropriate Regulatory Agencies

## SECTION 2: HAZARD IDENTIFICATION

**GHS Hazard Classification:** None

This material does not present any unusual hazards under ordinary conditions. Use general precautions when handling, transporting, and storing this material.

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	% BY WEIGHT
Urea	57-13-6	5-65
Ammonium Phosphate, monobasic	7722-76-1	4-70
Ammonium Phosphate, dibasic	7783-28-0	4-65
Potassium Chloride	7447-40-7	5-90
Sulfur	7704-34-9	0.1-1.5
Ammonium Sulfate	7783-20-2	5-50
Zinc EDTA	15954-98-0	<0.5
Sodium Borate	1303-96-4	<0.5
Proprietary Highly Branched Organic Acids	n/a	0.5

The material is a blend of Urea, Potassium Chloride, Ammonium Sulfate and usually only a single phosphate source (as designated in the derivation statement). The percentage is dependent on labeled grade, within the ranges specified. The Sulfur is present as a coating on some or all of the Urea. An inert filler or binder may also be included. The remaining ingredients are present in a coating on all granules.

## SECTION 4: FIRST AID MEASURES

**Skin Contact:** The material may be especially irritating to cuts, abrasions, and open wounds. If exposure occurs, rinse the affected area thoroughly with water. Treat other irritated areas by washing with soap and water.

**Eye Contact:** Minor irritation is likely if exposure occurs. Rinse eyes thoroughly with water for 15 minutes. Remove contacts if necessary. Seek medical attention if irritation persists.

**Respiration:** Inhalation of any dust may result in breathing difficulty. Remove to fresh air and seek medical attention

**Ingestion:** Swallowing large amounts may result in vomiting, diarrhea, cramps, and other gastrointestinal disturbances. Dilute stomach contents with water. Seek medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

Flash point: does not apply. The Sulfur coating, however, has a low ignition point.

Extinguishing Materials: use as appropriate to fight surrounding fires.

Special Hazards and Precautions: Ammonia, Oxides of Nitrogen, and Chlorine gases may be evolved at elevated temperatures. The Sulfur coating will burn to Sulfur Dioxide. Molten sulfur may evolve hydrogen sulfide (H<sub>2</sub>S), a flammable gas.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

Keep from entering waterways. Sweep up material and place in suitable container for use as a fertilizer or for disposal. For major releases, response by trained personnel using preplanned procedures is recommended. Refer to Exposure Controls / Personal protection to determine proper PPE. Consult applicable regulatory agencies for spill reporting and disposal.

## SECTION 7: HANDLING AND STORAGE

Standard conditions are generally acceptable. Keep from humidity to avoid product caking/clumping.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin exposure should be kept minimal by wearing gloves, long pants, and long sleeved shirts. If handling conditions cause powder to disperse, wear goggles and a dust mask for eye and respiratory protection.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: white, brown, black, and yellow granules. May contain some dust or fine particles.

Odor: none

Solubility in water: The plant nutrient components are highly soluble, with the exception of iron oxide. The iron content is soluble only under acidic conditions

## SECTION 10: STABILITY AND REACTIVITY

This material is stable under normal use and storage conditions. This product is not a reactivity or polymerization hazard. Dust-Air mixtures may ignite and explode.

## SECTION 11: TOXICOLOGICAL INFORMATION

This material is not known to be a toxicity hazard to animals or humans.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity for this product is low. It contains plant nutrients. It incorporates into biological processes.

## SECTION 13: DISPOSAL CONSIDERATIONS

This material is not defined as a hazardous waste by the U.S.E.P.A. Dispose of this material as recommended by federal, state, and local regulations.

## SECTION 14: TRANSPORT INFORMATION

This material is not regulated as a hazardous material by the U.S.D.O.T. Use normal transportation safety precautions.

## SECTION 15: REGULATORY INFORMATION

SARA Title III Hazard Class: not considered a hazard

CERCLA Reportable Quantity: not applicable.

TSCA: not regulated

RCRA Hazardous Waste Classification: not regulated

## SECTION 16: DISCLAIMER

This information is accurate to the best of our knowledge, and is furnished without warranty of any kind. Users should determine the suitability of this material for its intended purpose. The user assumes all risks associated with the use of this product.