



**Section 1 - Chemical Product and Company Identification**

**Product/Chemical Name:** Royster-Clark Blended Fertilizer (Grades with No Nitrate, Copper, Manganese, or Zinc Compounds)  
**Chemical Formula:** Inorganic Salts  
**CAS Number:** Not Applicable  
**General Use:** Fertilizer, Crop Nutrients  
**Manufacturer:** Royster-Clark Inc., 999 Waterside Drive, Suite 800, Norfolk, VA 23510 Phone (618)346-7300, FAX (618)346-7451, CHEMTREC (800)424-9300

**Section 2 - Composition / Hazardous Ingredients**

Ingredient Name	CAS Number	%
Nitrogen Compounds (No nitrates)*	-	0-45
Phosphate Compounds*	-	0-45
Potash Compounds*	-	0-50
Fluoride, as F	-	0-1.3
Iron Compounds (oxide and sulfate), as Fe*	-	0-3
Silica, Crystalline (See Section 3)	14808-60-7	0-30

\* Refer to each individual product's Guaranteed Analysis Tag or Label, as required by state agricultural regulations, for product specific analysis of these ingredients.

**Section 3 - Hazards Identification**

**☆☆☆☆☆ Emergency Overview ☆☆☆☆☆**

This product may contain nitrogen and phosphate compounds as indicated in Section 2, which if involved in a fire may release hazardous decomposition products. This product may contain nitrogen compounds as indicated in Section 2, which if spilled or released into a waterway could be toxic to aquatic life and may cause eutrophication.

<b>HMIS</b>
<b>H</b> 1
<b>F</b> 0
<b>R</b> 0
<b>PPE†</b>
†Sec. 8

**Potential Health Effects**

**Primary Entry Routes:** Inhalation (breathing), ingestion (swallowing), eye contact, skin contact.

**Target Organs:** No Target Organ data was found concerning these products. Silica related lung effects are discussed under Carcinogenicity and Chronic Effects (inhalation) below.

**Acute Effects**

**Inhalation:** Inhalation of airborne dust may cause irritation of respiratory tract.

**Eye:** Eye contact may cause irritation.

**Skin:** Contact with abrasions and cuts, or prolonged exposure may cause irritation.

**Ingestion:** Ingestion may cause irritation of the gastrointestinal tract, cramps, and vomiting.

**Carcinogenicity:** IARC, NTP, and OSHA do not list these products as a carcinogen; however, these products contain crystalline silica (sand). Crystalline silica is classified by IARC as a Group 1 carcinogen defined as "the agent is carcinogenic to humans...." and is classified by NTP as a Group 2 carcinogen defined as "substances....that may reasonably be anticipated to be carcinogens." The crystalline silica in these products is primarily washed sand and little to none is expected in the respirable size range during normal handling and storage.

**Medical Conditions Aggravated by Long-Term Exposure:** Existing skin disorders and lung disorders (such as asthma) may be aggravated by long-term exposure.

**Chronic Effects:** Chronic ingestion may cause damage to the digestive tract and may lead to diarrhea, convulsions, and nausea. Chronic inhalation of dust concentrations that exceed recommended or regulatory levels may result in lung injury or illness.

## Section 4 - First Aid Measures

**Inhalation:** Remove from area of exposure. If irritation persists, seek medical attention.

**Eye Contact:** Wash eyes immediately and thoroughly (15 minutes). If irritation persists, seek medical attention.

**Skin Contact:** Wash skin promptly to remove material. If irritation persists, seek medical attention.

**Ingestion:** Drink large amounts of water and get medical attention. NEVER give anything by mouth to an unconscious person.

## Section 5 - Fire-Fighting Measures

**Flash Point:** Not Applicable

**Autoignition Temperature:** Not Determined

**LEL/UEL:** Not Applicable

**Flammability Classification:** HMIS=0, NFPA=0

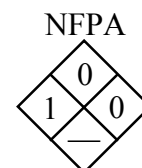
**Extinguishing Media:** Spread and cool the material, apply water if necessary.

**Unusual Fire or Explosion Hazards:** If involved in a fire may release hazardous decomposition products.

**Hazardous Decomposition Products:** Ammonia, nitrogen oxides, sulfur oxides, metal oxides, hydrogen chloride.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in positive-pressure mode.



## Section 6 - Accidental Release Measures

**Spill /Leak Procedures:**

**Small Spills:** Sweep or shovel up, recover, and use, if uncontaminated.

**Large Spills**

**Containment:** Contain and recover material using mechanical equipment (if available) and re-use, if uncontaminated. Do not release into sewers or waterways.

**Cleanup:** Sweep area clean if spill occurs on paved surface. Remove adequate topsoil to ensure recovery of all material if spilled directly onto the ground.

**Regulatory Requirements:** Follow applicable OSHA regulations to protect workers during cleanup. See Section 15 for additional regulatory requirements.

## Section 7 - Handling and Storage

**Handling Precautions:** Avoid spillage and product contamination.

**Storage Requirements:** Storage should be in dry conditions away from sources of excess heat.

**Regulatory Requirements:** See Section 8 for employee exposure controls and Section 15 for other regulatory requirements.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

**Ventilation:** Provide general or local exhaust ventilation systems or other engineering controls to maintain airborne concentrations below regulatory levels (See Section 15).

**Administrative Controls:**

**Respiratory Protection:** If dust concentrations exceed recommended exposure levels, use a NIOSH-approved dust respirator. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are required, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**Protective Clothing/Equipment:** Wear gloves and appropriate clothing as needed to prevent prolonged or repeated skin contact. Wear protective eyeglasses or safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Safety Stations:** Make emergency eyewash stations and washing facilities available in work area.

**Contaminated Equipment:** Separate heavily contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Practice good personal hygiene during and after use of this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid, granular

**Appearance and Odor:** Dark tan to dark gray granules, slight acidic or ammonia odor possible.

**Odor Threshold:** Not Determined

**Vapor Pressure:** Not Applicable

**Vapor Density (Air=1):** Not Applicable

**Formula Weight:** Not Determined

**Density:** 60-85 lbs/ft<sup>3</sup>

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** Not Determined

**pH (1% solution):** 5.5-8.0

**Water Solubility:** Appreciable

**% Volatile:** Not Applicable

## Section 10 - Stability and Reactivity

**Stability:** These products are stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Alkalis and organic materials.

**Conditions to Avoid:** Exposure to moisture, elevated temperatures and fire.

**Hazardous Decomposition Products:** Ammonia, nitrogen oxides, sulfur oxides, metal oxides, hydrogen chloride.

## Section 11- Toxicological Information

### Toxicity Data:\*

**Eye Effects:** No data was found on these products; however, toxicological data related to some components indicated them to be mild eye irritants.

**Acute Dermal Effects:** No data was found on these products; however, most major components of these products have been determined to or are expected to be "not toxic" based on the criteria of OSHA 1910.1200, Appendix A, Dermal(mammal) LD<sub>50</sub> > 1000 mg/kg

**Mutagenicity:** No data was found.

**Teratogenicity:** No data was found.

**Acute Oral Effects:** No data was found on these products; however, most major components of these products have been determined to or are expected to be "not toxic" based on the criteria of OSHA 1910.1200, Appendix A, Oral(mammal) LD<sub>50</sub> > 500 mg/kg. (Note: Toxicological data on most ingredients indicated a Rat, oral, LD<sub>50</sub> of >500-5000 mg/kg which requires an HMIS Health rating of 1.)

**Acute Inhalation Effects:** No data was found on these products; however, most major components of these products have been determined to or are expected to be "not toxic" based on the criteria of OSHA 1910.1200, Appendix A, Inhalation(mammal) LC<sub>50</sub>(mists, fumes, dusts) > 20,000 mg/m<sup>3</sup>

**Chronic Effects:** No data was found on these products, see Section 3.

**Carcinogenicity:** No data was found on these products, see Section 3.

\* See NIOSH, RTECS on listed ingredients for additional toxicity data.

## Section 12 - Ecological Information

**Ecotoxicity:** These products are plant nutrients; however, in elevated concentrations these products can cause vegetation kill, toxicity to aquatic life, and contribute to eutrophication.

**Environmental Fate:** Most major components of these products do not bioaccumulate. Plant nutrients will be utilized by plant life.

## Section 13 - Disposal Considerations

**Disposal:** Recovered materials can often be applied to farmland as fertilizer, if uncontaminated. Contact your supplier or a licensed contractor for detailed recommendations.

**Disposal Regulatory Requirements:** Follow applicable Federal, state, and local regulations if disposal is required.

**Container Cleaning and Disposal:** Containers should be thoroughly emptied prior to disposal.

## Section 14 - Transportation Information

### DOT Transportation Data (49 CFR 172.101):

**These products are not regulated as Hazardous Materials by DOT Hazardous Materials Regulations.**

## Section 15 - Regulatory Information

### EPA Regulations:

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed

CERCLA Hazardous Substance (40 CFR 302.4): Not listed

CERCLA Reportable Quantity (RQ): Not Applicable

SARA 311/312 Codes: Acute (Irritant), Chronic

SARA Toxic Chemical (40 CFR 372.65): Not Applicable (Unless placed in water, then 10% of water dissociable ammonia salts are reportable.)

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

SARA EHS Threshold Planning Quantity (TPQ): Not Applicable

### OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): These products are not listed; however, the exposure levels for nuisance dust are applicable. These products may contain the following ingredients (See Section 2) which are listed by

OSHA and/or ACGIH:	OSHA PEL(TWA*)	ACGIH TLV(TWA*)
Nuisance Dust(total):	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Nuisance Dust(respirable):	5 mg/m <sup>3</sup>	3 mg/m <sup>3</sup>
Fluorides (inorganic, solid):	2.5 mg/m <sup>3</sup>	2.5 mg/m <sup>3</sup>
Iron salts (soluble, as Fe):	NE	1 mg/m <sup>3</sup>
Silica, crystalline (respirable):	a	b

\* Unless indicated otherwise.

a. For silica, crystalline quartz: OSHA - PEL Table Z-3, Respirable dust: 10 mg/m<sup>3</sup> / % SiO<sub>2</sub> + 2 (determined from the fraction passing a size-selector); Total dusts: 30 mg/m<sup>3</sup> / %SiO<sub>2</sub> + 2

b. For silica, crystalline quartz: ACGIH TLV = 0.1 mg/m<sup>3</sup> (Respirable fraction of particulate matter for the substance listed. The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in the "c" paragraph of Appendix D.)

**State Regulations:** These products are regulated in commerce by state agricultural and/or consumer protection laws. These products and ingredients may also be listed in various state Right-to-know, worker protection, and/or environmental protection laws. If you are unable to determine the proper status of this product under your respective state laws contact the manufacturer.

## Section 16 - Other Information

ACGIH - American Conference of Governmental Industrial Hygienists

ANSI - American National Standards Institute

CAS - Chemical Abstracts Service

CFR - Code of Federal Regulations

CHEMTREC - Chemical Transportation Emergency Center

DOT - U.S. Department of Transportation

EHS - Extremely Hazardous Substance

EPA - U.S. Environmental Protection Agency

HMIS - Hazardous Material Identification System

IARC - International Agency for Research on Cancer

LEL/UEL - Lower and Upper Explosive Limit

mg/m<sup>3</sup> - Milligrams per cubic meter

MSDS - Material Safety Data Sheet

NIOSH - National Institute of Occupational Safety and Health

NFPA - National Fire Protection Association

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit (set by OSHA)

PPE - Personal Protective Equipment

SARA - Superfund Amendments and Reauthorization Act

TLV - Threshold Limit Value (set by ACGIH)

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**Prepared By:** SAFENVIRONS, INC.

**Revision Notes:** This revision includes an update of Sections 11 & 12.

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