



Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Granular Superphosphate (0-20-0)
Chemical Formula: Ca(H₂PO₄)₂ • H₂O + CaSO₄
CAS Number: 8011-76-5
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	%
Free Acid, as Sulfuric Acid	7664-93-9	1-2
Fluoride, as F	-	1.6-2.0

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

This product may contains 1-2 per cent sulfuric acid. This product is nonflammable. Under fire conditions toxic substances may be released. If spilled or released into a waterway could be toxic to aquatic life and may cause eutrophication.

HMIS
H 1
F 0
R 0
PPE †
†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.
Acute Effects
Inhalation: Inhalation of airborne dust may cause irritation of respiratory tract.
Eye: Eye contact may cause irritation. Sulfuric acid contained in this product is a severe eye irritant.
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 does not list this product as a carcinogen; however, sulfuric acid contained in this product is listed by IARC as a Group 1 carcinogen defined as “the agent is carcinogenic to humans....”
Medical Conditions Aggravated by Long-Term Exposure: Existing skin disorders and lung disorders (such as asthma) may be aggravated by long-term exposure to dust levels above recommended levels.
Chronic Effects: No product specific information was found; however, chronic inhalation of inorganic 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 IMMEDIATELY. 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: NFPA = 0, HMIS = 0, Nonflammable

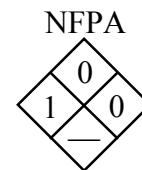
Extinguishing Media: Spread and cool the material, apply water if necessary. Use water spray or fog to control fumes. Use appropriate extinguishing media for surrounding materials.

Unusual Fire or Explosion Hazards: None

Hazardous Decomposition Products: Fluorides, sulfur oxides, phosphorus oxides.

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 pressure-demand or 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 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 product 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.

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: If needed, 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
Appearance and Odor: Dark to light gray granules, slight acidic/fertilizer odor.
Odor Threshold: Not Determined
Vapor Pressure: Not Applicable
Vapor Density (Air=1): Not Applicable
Formula Weight: Not Determined
Bulk Density (loose): 73 lbs/ft³
Specific Gravity (H₂O=1, at 4 °C): Not Applicable
pH (1% slurry): 3.1 - 3.2
Water Solubility: Appreciable
% Volatile: Not Applicable

Section 10 - Stability and Reactivity

Stability: These products are stable at room temperature under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities: None
Conditions to Avoid: Exposure to elevated temperatures and fire.
Hazardous Decomposition Products: Fluorides, sulfur oxides, phosphorus oxides.

Section 11- Toxicological Information

Toxicity Data:*

Eye Effects: Irritant – This product may contain up to 2% free acid as Sulfuric Acid: Standard Draize Test (rabbit): 250 ug = Severe
Skin Effects: Irritant
Acute Dermal Effects: No data
Mutagenicity: No data
Teratogenicity: No data

Acute Oral Effects: The major component of this product has been determined to be “not toxic” based on the criteria of OSHA 1910.1200, Appendix A, Oral(mammal) LD₅₀ > 500 mg/kg (Single Super Phosphate – Oral, LD₅₀(sheep) 5000-6000 mg/kg)
Acute Inhalation Effects: No data
Chronic Effects: See Section 3.
Carcinogenicity: See Section 3.

* See NIOSH, RTECS WU 1700000 (Superphosphate) for additional toxicity data.

Section 12 - Ecological Information

Ecotoxicity: This product contains plant nutrients; however, in elevated concentrations this product can cause vegetation kill and may contribute to eutrophication if spilled into water. The major component of this product has been determined to be practically non-toxic to aquatic organisms per USEPA criteria.
Environmental Fate: This product is biodegradable. Plant nutrients will be utilized by plant life.

Section 13 - Disposal Considerations

Disposal: Recovered materials can often be applied to farm land 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):

This product is not regulated as a DOT Hazardous Material.

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)
 SARA Toxic Chemical (40 CFR 372.65): This product contains 1-2% sulfuric acid as listed in Section 2 of this MSDS which is subject to reporting.
 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. This product 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 ³	10 mg/m ³
Nuisance Dust(respirable):	5 mg/m ³	3 mg/m ³
Fluorides (inorganic, solid):	2.5 mg/m ³	2.5 mg/m ³
Sulfuric acid	1 mg/m ³	1 mg/m ³ (3 mg/m ³ = STEL)

*Unless otherwise indicated.

State Regulations: This product is 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/m³ - 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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