

**Manufacturer's Name & Address**

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**I NOMENCLATURE**

**Product Name:** 10-10-10 All Purpose Fertilizer  
**Chemical Name:** Not applicable (mixture of fertilizer materials)  
**Chemical Family:** mixture of inorganic salts  
**General Use:** Fertilizer, Crop Nutrients

**II INGREDIENTS****Ingredient Name**

Nitrates\*

Ammonium Sulfate

Ammonium Phosphate

Potassium Sulfate Magnesia

Muriate of Potash

Boron Compounds (typically sodium tetraborate pentahydrate), as B\*

Iron Compounds (oxide and sulfate), as Fe\*

Manganese Compounds (oxide and sulfate), as Mn\*  
(0.35% Mn = 1% Mn Compound)

Silica Crystalline

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

**III HAZARDOUS IDENTIFICATION**

This product may contain nitrates as indicated in Section 2, which if contaminated with a fuel (i.e., organic hydrocarbon) and confined may pose a fire and explosion hazard. This product may contain nitrogen compounds and copper compounds as indicated in Section 2, which if spilled or released into a waterway could be toxic to aquatic life and may cause eutrophication.

**HMS H-1, F-1, R-1**

**IV 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. Nitrate and borate effects are discussed in Chronic Effects (ingestion) 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 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 central nervous system, heart, kidneys, and blood-forming tissue and may lead to diarrhea, convulsions, headache, mental impairment, dizziness, and tachycardia. Chronic inhalation of dust concentrations that exceed recommended or regulatory levels may result in lung injury or illness.

**V FIRST AID**

**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.

**VI FIRE FIGHTING MEASURES**

**Flash Point:** Not Applicable

**Autoignition Temperature:** Not Determined

**LEL/UEL:** Not Applicable

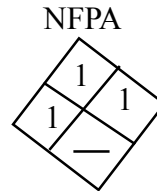
**Flammability Classification:** HMIS=1, NFPA=1

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

**Unusual Fire or Explosion Hazards:** For products containing nitrates: If contaminated with easily oxidizable materials such as hydrocarbons and confined under fire conditions, the potential for an explosion hazard exists.

**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 pressure-demand or positive-pressure mode.

**VII 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.

**VIII HANDLING AND STORAGE**

**Handling Precautions:** Avoid spillage and product contamination, especially with organic material.

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

**IX 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.

**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.

#### **X 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:** 65-85 lbs/ft<sup>3</sup>

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.04-1.36

**pH (1% solution):** 6.0-7.4

**Water Solubility:** Appreciable

**% Volatile:** Not Applicable

#### **XI 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 elevated temperatures and fire.

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

#### **XII TOXICOLOGICAL INFORMATION**

**Toxicity Data:\***

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

**Acute Dermal Effects:** No data was found on this product; however, most major components of this product 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

**Acute Oral Effects:** No data was found on this product; however, most major components of this product 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

**Acute Inhalation Effects:** No data was found on this product.

**Carcinogenicity:** See Section 3.

**Mutagenicity:** No data

**Teratogenicity:** No data

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

#### **XIII ECOLOGICAL INFORMATION**

**Ecotoxicity:** This product is plant nutrients; however, in elevated concentrations this product can cause vegetation kill, toxicity to aquatic life, and contribute to eutrophication.

**Aquatic Toxicity:** Some components of this product have been determined to be slightly or moderately toxic to aquatic organisms per USEPA criteria.

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

#### **XIV 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.

#### **XV TRANSPORTATION INFORMATION DOT TRANSPORTATION DATA (49 CFR 172.101)**

**NOTE:** Domestic highway and rail transportation of this product DOES NOT require the use of placards. Consult the DOT Regulations or the manufacturer for proper shipping instructions for non-domestic or air transportation of this product.

MRnS Nn\_ CRRI,TO Saner Rainbow Fertilizer (All grades w/less than 1% Cu, Mn, & Zn Compounds)

**XVI 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):** This product contain less than 1% of the following compounds as listed in Section 2 of this MSDS: Copper compounds, manganese compounds, zinc compounds.

**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):** This product is 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*)
<b>Nuisance Dust(total):</b>	15 mg/m3	10 mg/m3
<b>Nuisance Dust(respirable):</b>	5 mg/m3	3 mg/m3
<b>Sodium tetraborate pentahydrate:</b>	NE	1 mg/m3
<b>Iron salts (soluble, as Fe):</b>	NE	1 mg/m3
<b>Manganese compounds:</b>	5 mg/m3 (Ceiling)	0.2 mg/m3
<b>Zinc oxide (dust, total):</b>	15 mg/m3	10 mg/m3
<b>Zinc oxide (dust, respirable):</b>	5 mg/m3	NE
<b>Silica, crystalline (respirable):</b>	a	b

\* Unless indicated otherwise.

**a. For silica, crystalline quartz:** OSHA - PEL Table Z-3, Respirable dust: 10 mg/m3 / % SiO2 + 2 (determined from the fraction passing a size-selector); Total dusts: 30 mg/m3 / %SiO2 + 2

**b. For silica, crystalline quartz:** ACGIH TLV = 0.1 mg/m3 (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:** This product is regulated in commerce by state agricultural and/or consumer protection laws. This product 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.

DISCLAIMER: THE INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET ("MSDS") RELATES ONLY TO THE SPECIFIC PRODUCT DESIGNATED HEREIN (THE "PRODUCT"). THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CURRENT AND CORRECT AS OF THE DATE OF THIS MSDS, AND OBTAINED FROM SOURCES THAT ARE BELIEVED TO BE RELIABLE. HOWEVER, THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, REPRESENTATIONS OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO ACCURACY, CORRECTNESS OR COMPLETENESS, AND NEITHER ROYSTER-CLARK, INC. NOR ITS MARKETING AFFILIATES (EACH, A "SELLER") ASSUME ANY LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON SAME.