

**MATERIAL SAFETY DATA TECHNICAL INFORMATION
SECTION I - IDENTIFICATION**

CHEMICAL NAME AND SYNONYMS: MICRONUTRIENT MIXTURE

CHEMICAL FAMILY: INORGANIC CHEMICAL

PRODUCT USE: FERTILIZER MICRONUTRIENT FOR BLENDING FOR SOIL APPLICATION

TRADE NAME: F 287 GC

DESCRIPTION: 28%Mn

SECTION II

HAZARDOUS INGREDIENT	CAS NUMBER	THRESHOLD LIMIT VALUE
Manganese Oxide	1344430	5.00 mg Mn/m3
Manganese Sulfate	7785877	5.00 mg Mn/m3

EFFECTS-ACUTE EXPOSURE: CAN CAUSE IRRITATION OF SKIN, EYES, AND RESPIRATORY SYSTEM.

EFFECTS-CHRONIC EXPOSURE: CAN CAUSE DAMAGE TO RESPIRATORY SYSTEM, URINARY SYSTEM, BLOOD SYSTEM, AND REPRODUCTIVE SYSTEM

SECTION III-NORMAL HANDLING PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

PROTECTIVE EQUIPMENT: YES

RESPIRATORY PROTECTION: APPROVED RESPIRATOR PER 29 CFR 1910.134

EYES: GOGGLES

GLOVES: HEAVY DUTY WORK GLOVES

OTHER: LONG SLEEVED SHIRTS

VENTILATION REQUIREMENTS: ADEQUATE TO REMOVE DUST FROM THE AIR

NOTE: HANDS, ARMS, AND FACE SHOULD BE WASHED PRIOR TO EATING, DRINKING, OR SMOKING.

SECTION IV-EMERGENCY AND FIRST AID PROCEDURES

INHALATION: REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN: FLUSH WITH WATER. IF IRRITATION DEVELOPS, CALL PHYSICIAN.

EYES: FLUSH WITH WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

INGESTION: SEEK MEDICAL ATTENTION IMMEDIATELY.

SECTION V-FIRE AND EXPLOSION HAZARD DATA

THIS PRODUCT IS NONCOMBUSTIBLE

EXTINGUISHING MEDIA: THIS PRODUCT IS NOT A FLAMMABLE MATERIAL, BUT METALLIC FUME CAN BE RELEASED UNDER INTENSE HEAT.

SPECIAL FIREFIGHTING PROCEDURES OR FIRE HAZARD: DO NOT WASH MATERIAL INTO ANY STREAMS, WATERWAYS, DRAINAGE DITCHES OR STORM SEWERS, ETC. IMPOUND LIQUIDS USED IN FIREFIGHTING TO PREVENT ENTRY INTO STREAMS, DITCHES, SEWERS, ETC.

SECTION VI-SPILL AND LEAKAGE PROCEDURES

REMOVE ALL SOURCES OF IGNITION. WEAR NIOSH/OSHA APPROVED DUST RESPIRATORS. FOLLOW OSHA REGULATIONS FOR RESPIRATOR USE. (SEE 29 CFR 1910.134). SHOVEL OR SWEEP UP AND REUSE. USE APPROVED LIQUID SPRAY TO REDUCE DUST WHEN SWEEPING OR SHOVELING.

WASTE DISPOSAL METHOD: DISPOSE OF CONTAMINATED PRODUCT, EMPTY CONTAINERS AND MATERIALS USED IN CLEANING UP SPILLS AND LEAKS IN A MANNER APPROVED FOR THIS MATERIAL. CONSULT APPROPRIATE FEDERAL, STATE, AND LOCAL REGULATORY AGENCIES TO ASCERTAIN PROPER DISPOSAL PROCEDURES.

SECTION VII-SHIPING DATA

D.O.T. CLASS

NONCOMBUSTIBLE

SECTION VIII-REACTIVITY DATA

STABLE: YES **INCOMPATIBILITY:** NONE **CONDITIONS TO AVOID:** NONE

SECTION IX-PHYSICAL DATA

THIS IS A SOLID MATERIAL WHICH IS PARTIALLY SOLUBLE IN WATER
ODOR & APPEARANCE: SLIGHT METALLIC ODOR, DARK BROWN GRANULE
VAPOR PRESSURE: N/A **pH:** 4-6.5
BOILING POINT: N/A **SPECIFIC GRAVITY:** 1.6