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Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

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SECTION 1. ----- CHEMICAL IDENTIFICATION -----

CATALOG #: M025-2-03
NAME: MANGANESE(III) FLUORIDE

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS #: 7783-53-1
MF: F₃Mn = 111.93

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

OXIDIZING. HARMFUL.

CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE. HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

TARGET ORGAN(S): NERVES. LUNGS.

SECTION 4. ----- FIRST-AID MEASURES -----

ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

EYE EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA

SUITABLE: CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

FIREFIGHTING

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.

EXPOSURE HAZARD(S)

MATERIAL: IRRITANT. HARMFUL SOLID.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

EVACUATE AREA.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS, AND HEAVY RUBBER GLOVES.

METHODS FOR CLEANING UP

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID RAISING DUST. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. ----- HANDLING AND STORAGE-----

HANDLING

USER EXPOSURE: DO NOT BREATHE DUST. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

STORAGE

SUITABLE: KEEP TIGHTLY CLOSED. KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT, SPARKS, AND OPEN FLAME. STORE IN A COOL DRY PLACE.

SPECIAL REQUIREMENTS

HYGROSCOPIC.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

ENGINEERING CONTROLS

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

PERSONAL PROTECTIVE EQUIPMENT

OTHER: WEAR APPROPRIATE GOVERNMENT APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING. WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE PHYSICAL STATE

SOLID

PROPERTY

DENSITY: 3.54 g/cm³

SECTION 10. -----STABILITY AND REACTIVITY -----

STABILITY

CONDITIONS OF INSTABILITY: MOISTURE.

CONDITIONS TO AVOID: MOISTURE.

MATERIALS TO AVOID: STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN FLUORIDE.

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ROUTE OF EXPOSURE

INHALATION: MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.

MULTIPLE ROUTES: CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

TARGET ORGAN(S) OR SYSTEM(S)

LUNGS. NERVES.

SIGNS AND SYMPTOMS OF EXPOSURE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. MEN EXPOSED TO MANGANESE DUSTS SHOWED A DECREASE IN FERTILITY. CHRONIC MANGANESE POISONING PRIMARILY INVOLVES THE CENTRAL NERVOUS SYSTEM. EARLY SYMPTOMS INCLUDE LANGUOR, SLEEPINESS AND WEAKNESS IN THE LEGS. A STOLID MASK-LIKE APPEARANCE OF THE FACE, EMOTIONAL DISTURBANCES SUCH AS UNCONTROLLABLE LAUGHTER AND A SPASTIC GAIT WITH TENDENCY TO FALL IN WALKING ARE FINDINGS IN MORE ADVANCED CASES. HIGH INCIDENCE OF PNEUMONIA HAS BEEN FOUND IN WORKERS EXPOSED TO THE DUST OR FUME OF SOME MANGANESE COMPOUNDS.

TOXICITY DATA

ORAL

MOUSE

86 mg/kg

LD50

REMARKS: LUNGS, THORAX, OR

RESPIRATION: RESPIRATORY

DEPRESSION. BEHAVIORAL:

SOMNOLENCE (GENERAL DEPRESSED

ACTIVITY). BEHAVIORAL:

CONVULSIONS OR EFFECT ON SEIZURE

THRESHOLD.

INHALATION

MOUSE

320 mg/m³

LC50

REMARKS: LUNGS, THORAX, OR

RESPIRATION: STRUCTURAL OR

FUNCTIONAL CHANGE IN TRACHEA

OR BRONCHI. BEHAVIORAL:

CONVULSIONS OR EFFECT ON SEIZURE

THRESHOLD. SENSE ORGANS AND

SPECIAL SENSES (NOSE, EYE, EAR, AND

TASTE):EYE: OTHER.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
BURY IN A LANDFILL SITE APPROVED FOR THE DISPOSAL OF CHEMICAL AND
HAZARDOUS WASTES. OBSERVE ALL FEDERAL, STATE, AND LOCAL
ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT

PROPER SHIPPING NAME: OXIDIZING SOLID, N.O.S.
UN#: 1479
CLASS: 5.1
PACKING GROUP: PACKING GROUP III
HAZARD LABEL: OXIDIZING SOLID

SECTION 15. ----- REGULATORY INFORMATION -----

EU ADDITIONAL CLASSIFICATION

SYMBOL OF DANGER: O-Xn
INDICATION OF DANGER: OXIDIZING. HARMFUL.
R: 8-20/21/22-36/37/38

RISK STATEMENTS: CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE
FIRE. HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF
SWALLOWED. IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

S: 17-26-36/37/39

SAFETY STATEMENTS: KEEP AWAY FROM COMBUSTIBLE MATERIAL. IN CASE
OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND
SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES,
AND EYE/FACE PROTECTION.

US CLASSIFICATION AND LABEL TEXT

INDICATION OF DANGER: OXIDIZING. HARMFUL.

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SAFETY STATEMENTS: KEEP AWAY FROM COMBUSTIBLE MATERIAL. IN CASE
OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND
SEEK MEDICAL ADVICE. WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES,
AND EYE/FACE PROTECTION.

US STATEMENTS: TARGET ORGAN(S): NERVES. LUNGS.

SECTION 16. ----- OTHER INFORMATION -----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO
BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SYNQUEST LABS, INC. SHALL
NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT
WITH THE ABOVE PRODUCT.