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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	35683
NAME:	Manganese(III) fluoride
SYNONYMS:	Manganese trifluoride
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)
OXIDIZING SOLIDS (CATEGORY 2), H272
ACUTE TOXICITY, ORAL (CATEGORY 3), H301
ACUTE TOXICITY, INHALATION (CATEGORY 4), H332

ACUTE TOXICITY, DERMAL (CATEGORY 4), H312
SKIN IRRITATION (CATEGORY 2), H315
EYE IRRITATION (CATEGORY 2A), H319
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3),
RESPIRATORY SYSTEM, H335

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE
SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS
PICTOGRAM**



SIGNAL WORD DANGER

HAZARD STATEMENT(S)

H272 MAY INTENSIFY FIRE; OXIDIZER.
H301 TOXIC IF SWALLOWED.
H312 + H332 HARMFUL IN CONTACT WITH SKIN OR IF INHALED.
H315 CAUSES SKIN IRRITATION.
H319 CAUSES SERIOUS EYE IRRITATION.
H335 MAY CAUSE RESPIRATORY IRRITATION.

PRECAUTIONARY STATEMENT(S)

P210 KEEP AWAY FROM HEAT.
P220 KEEP/STORE AWAY FROM CLOTHING/ COMBUSTIBLE
MATERIALS.
P221 TAKE ANY PRECAUTION TO AVOID MIXING WITH
COMBUSTIBLES.
P261 AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/
SPRAY.
P264 WASH SKIN THOROUGHLY AFTER HANDLING.
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS
PRODUCT.
P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.
P280 WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE
PROTECTION.
P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON
CENTER/DOCTOR. RINSE MOUTH.
P302 + P352 + P312 IF ON SKIN: WASH WITH PLENTY OF WATER. CALL A POISON
CENTER/DOCTOR IF YOU FEEL UNWELL.
P304 + P340 + P312 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP
COMFORTABLE FOR BREATHING. CALL A POISON
CENTER/DOCTOR IF YOU FEEL UNWELL.
P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL
MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND
EASY TO DO. CONTINUE RINSING.
P332 + P313 IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/
ATTENTION.
P337 + P313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/
ATTENTION.
P362 TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE
REUSE.

P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.
P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.
P405 STORE LOCKED UP.
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS STRONG HYDROGEN FLUORIDE-RELEASER

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: MnF₃
MW: 111.93
CAS-NO. 7783-53-1
PURITY: ≥98% Metal basis (Mn : 47.9 - 50.3%)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Manganese(III) fluoride		
	OX. SOL. 2; ACUTE TOX. 3; ACUTE TOX. 4; SKIN IRRIT. 2; EYE IRRIT. 2A; STOT SE 3; H272, H301, H332, H312, H315, H319, H335	≤ 100%

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE HYDROFLUORIC (HF) ACID BURNS REQUIRE IMMEDIATE AND SPECIALIZED FIRST AID AND MEDICAL TREATMENT. SYMPTOMS MAY BE DELAYED UP TO 24 HOURS DEPENDING ON THE CONCENTRATION OF HF. AFTER DECONTAMINATION WITH WATER, FURTHER DAMAGE CAN OCCUR DUE TO PENETRATION/ABSORPTION OF THE FLUORIDE ION.

TREATMENT SHOULD BE DIRECTED TOWARD BINDING THE FLUORIDE ION AS WELL AS THE EFFECTS OF EXPOSURE. SKIN EXPOSURES CAN BE TREATED WITH A 2.5% CALCIUM GLUCONATE GEL REPEATED UNTIL BURNING CEASES. MORE SERIOUS SKIN EXPOSURES MAY REQUIRE SUBCUTANEOUS CALCIUM GLUCONATE EXCEPT FOR DIGITAL AREAS UNLESS THE PHYSICIAN IS EXPERIENCED IN THIS TECHNIQUE, DUE TO THE POTENTIAL FOR TISSUE INJURY FROM INCREASED PRESSURE. ABSORPTION CAN READILY OCCUR THROUGH THE SUBUNGUAL AREAS AND SHOULD BE CONSIDERED WHEN UNDERGOING DECONTAMINATION. PREVENTION OF ABSORPTION OF THE FLUORIDE ION IN CASES OF INGESTION CAN BE OBTAINED BY GIVING MILK, CHEWABLE CALCIUM CARBONATE TABLETS OR MILK OF MAGNESIA TO CONSCIOUS VICTIMS. CONDITIONS SUCH AS HYPOCALCEMIA, HYPOMAGNESEMIA AND CARDIAC ARRHYTHMIAS SHOULD BE MONITORED FOR, SINCE THEY CAN OCCUR AFTER EXPOSURE. CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.

IF INHALED

IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT

FIRST TREATMENT WITH CALCIUM GLUCONATE PASTE. WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.

IN CASE OF EYE CONTACT

RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.

IF SWALLOWED

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

**SUITABLE
EXTINGUISHING MEDIA** DRY POWDER DRY SAND

**SPECIAL HAZARDS
ARISING FROM THE
SUBSTANCE OR MIXTURE** HYDROGEN FLUORIDE, MANGANESE/MANGANESE
OXIDES
NOT COMBUSTIBLE.
FIRE-PROMOTING. KEEP AWAY FROM COMBUSTIBLE
MATERIALS.
COMBUSTIBLE.

**ADVICE FOR
FIREFIGHTERS** WEAR SELF-CONTAINED BREATHING APPARATUS FOR
FIREFIGHTING IF NECESSARY.

FURTHER INFORMATION USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL
PRECAUTIONS,
PROTECTIVE
EQUIPMENT AND
EMERGENCY
PROCEDURES** WEAR RESPIRATORY PROTECTION. AVOID DUST
FORMATION. AVOID BREATHING VAPOURS, MIST OR
GAS. ENSURE ADEQUATE VENTILATION. EVACUATE
PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST.
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL
PRECAUTIONS** PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE
TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

**METHODS AND
MATERIALS FOR
CONTAINMENT AND
CLEANING UP** SWEEP UP AND SHOVEL. CONTAIN SPILLAGE, AND
THEN COLLECT WITH AN ELECTRICALLY PROTECTED
VACUUM CLEANER OR BY WET-BRUSHING AND PLACE
IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL
REGULATIONS (SEE SECTION 13). KEEP IN SUITABLE,
CLOSED CONTAINERS FOR DISPOSAL.

**REFERENCE TO OTHER
SECTIONS** FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE
HANDLING** AVOID CONTACT WITH SKIN AND EYES. AVOID
FORMATION OF DUST AND AEROSOLS.FURTHER

PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE ADDITIONAL PROCESSING OCCURS.
 PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED.KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.
 FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE.

HANDLE AND STORE UNDER INERT GAS. MOISTURE SENSITIVE. DO NOT STORE IN GLASS KEEP IN A DRY PLACE.

Store at RT

SPECIFIC END USE(S)

APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
Manganese(III) fluoride	7783-53-1	TWA	2.5 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
	REMARKS	CAS NUMBER VARIES WITH COMPOUND		
		C	5 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		CEILING LIMIT IS TO BE DETERMINED FROM BREATHING-ZONE AIR SAMPLES.		
		TWA	2.5 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		BONE DAMAGE FLUOROSIS SUBSTANCES FOR WHICH THERE IS A BIOLOGICAL EXPOSURE INDEX OR INDICES NOT CLASSIFIABLE AS A HUMAN CARCINOGEN VARIES		

		TWA	0.1 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		CENTRAL NERVOUS SYSTEM IMPAIRMENT NOT CLASSIFIABLE AS A HUMAN CARCINOGEN VARIES		
		TWA	0.02 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		CENTRAL NERVOUS SYSTEM IMPAIRMENT NOT CLASSIFIABLE AS A HUMAN CARCINOGEN VARIES		
		TWA	1 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		ST	3 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		PEL	2.5 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS (TITLE 8, ARTICLE 107)
		PEL	0.2 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS (TITLE 8, ARTICLE 107)

BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS

COMPONENT	CAS-NO.	PARAMETERS	VALUE	BIOLOGICAL SPECIMEN	BASIS
Manganese(III) fluoride	7783-53-1	FLUORIDE	2 MG/L	URINE	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
	REMARKS	PRIOR TO SHIFT (16 HOURS AFTER EXPOSURE CEASES)			
		FLUORIDE	3 MG/L	URINE	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
		END OF SHIFT (AS SOON AS POSSIBLE AFTER EXPOSURE CEASES)			

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS

AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION

FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

SKIN PROTECTION	HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.
BODY PROTECTION	COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
RESPIRATORY PROTECTION	WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).
CONTROL OF ENVIRONMENTAL EXPOSURE	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Grey powder
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE

RELATIVE DENSITY	3.54
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	THE SUBSTANCE OR MIXTURE IS CLASSIFIED AS OXIDIZING WITH THE CATEGORY 2.
OTHER SAFETY INFORMATION	NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	NO DATA AVAILABLE
CHEMICAL STABILITY	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS	NO DATA AVAILABLE
CONDITIONS TO AVOID	REACTS DANGEROUSLY WITH GLASS.
INCOMPATIBLE MATERIALS	GLASS
HAZARDOUS DECOMPOSITION PRODUCTS	HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - HYDROGEN FLUORIDE, MANGANESE/MANGANESE OXIDES OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	LD50 ORAL - MOUSE - 86 MG/KG REMARKS: BEHAVIORAL: SOMNOLENCE (GENERAL DEPRESSED ACTIVITY). BEHAVIORAL: CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD. RESPIRATORY DISORDER
	LC50 INHALATION - MOUSE - 320 MG/M3 REMARKS: SENSE ORGANS AND SPECIAL SENSES (NOSE, EYE, EAR, AND TASTE): EYE:OTHER. BEHAVIORAL: CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD. LUNGS, THORAX, OR RESPIRATION: STRUCTURAL OR FUNCTIONAL CHANGE IN TRACHEA OR BRONCHI.
	DERMAL: NO DATA AVAILABLE
	NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	NO DATA AVAILABLE
SERIOUS EYE DAMAGE/EYE IRRITATION	NO DATA AVAILABLE
RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	NO DATA AVAILABLE
CARCINOGENICITY	
IARC:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.
NTP:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.
OSHA:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.
REPRODUCTIVE TOXICITY	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	INHALATION - MAY CAUSE RESPIRATORY IRRITATION.
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	NO DATA AVAILABLE
ASPIRATION HAZARD	NO DATA AVAILABLE

**ADDITIONAL
INFORMATION**

RTECS: OP0882600
FLUORIDE ION CAN REDUCE SERUM CALCIUM
LEVELS POSSIBLY CAUSING FATAL HYPOCALCEMIA.

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.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL,
PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE
NOT BEEN THOROUGHLY INVESTIGATED.
STOMACH - IRREGULARITIES - BASED ON HUMAN
EVIDENCE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY	NO DATA AVAILABLE
PERSISTENCE AND DEGRADABILITY	NO DATA AVAILABLE
BIOACCUMULATIVE POTENTIAL	NO DATA AVAILABLE
MOBILITY IN SOIL	NO DATA AVAILABLE
RESULTS OF PBT AND VPVB ASSESSMENT	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
OTHER ADVERSE EFFECTS	NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT	OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
CONTAMINATED PACKAGING	DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME:	OXIDIZING SOLID, TOXIC, N.O.S. (Manganese(III) fluoride)
UN NUMBER:	3087
CLASS:	5.1 (6.1)
PACKING GROUP:	II
REPORTABLE QUANTITY (RQ):	
POISON INHALATION HAZARD:	NO

IMDG

PROPER SHIPPING NAME:	OXIDIZING SOLID, TOXIC, N.O.S. (Manganese(III) fluoride)
UN NUMBER:	3087
CLASS:	5.1 (6.1)
PACKING GROUP:	II
EMS-NO:	F-A, S-Q

IATA

PROPER SHIPPING NAME:	OXIDIZING SOLID, TOXIC, N.O.S. (Manganese(III) fluoride)
UN NUMBER:	3087
CLASS:	5.1 (6.1)
PACKING GROUP:	II

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

SARA 313 COMPONENTS THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

	CAS-NO.	REVISION DATE
Manganese(III) fluoride	7783-53-1	07/08/2015

SARA 311/312 HAZARDS REACTIVITY HAZARD, ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Manganese(III) fluoride	7783-53-1	07/08/2015

SECTION 16. OTHER INFORMATION

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H272	MAY INTENSIFY FIRE; OXIDIZER.
H301	TOXIC IF SWALLOWED.
H312 + H332	HARMFUL IN CONTACT WITH SKIN OR IF INHALED.
H315	CAUSES SKIN IRRITATION.
H319	CAUSES SERIOUS EYE IRRITATION.
H335	MAY CAUSE RESPIRATORY IRRITATION.

MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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*DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*

VERSION: 3.1

REVISION DATE: 01/27/2017