MATERIAL SAFETY DATA SHEET : ADD-IRON PAGE : 01 /3

(066589-0103 -30166512-1861)

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SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS
N/A

TRADE NAME & SYNONYMS
ADD-IRON

CHEMICAL FAMILY
AQUEOUS IRON SOLUTION

FORMULA
X<--MIXTURE

MANUFACTURERS NAME:
MANTEK, DIVISION OF NCH CORP.

ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE)
BOX 152170
IRVING, TEXAS 75015

PREPARED BY:	PRODUCT CODE NUMBER	EMERGENCY TELEPHONE NUMBER
S SPRINKLE/CHEMIST	1861	214-438-1381

SECTION II- HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS.

CHEMICAL NAME (INGREDIENTS)	HAZARD	TLV	PEL	CAS#
IRON SULFATE	TOXIC	1MG/M3 1	NOT EST.	7720-78-7

SECTION IIA - NON-HAZARDOUS INGREDIENTS

NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE SECRET REGISTRY # 409363-5099P

SECTION III - PHYSICAL DATA

ADD-IRON

(CONTINUED) SECTION III - PHYSICAL DATA PAGE : 02

BOILING PT.(FAHRENHEIT)	210	SPEC GRAVITY (H2O=1)	:1.260
VAPOR PRESSURE (MM HG).	15	COLOR	DARK BROWN
VAPOR DENSITY (AIR=1)	0.6	ODOR	LIGNO SULFATE
PH @ 100%	3.5	CLARITY	OPAQUE
PERCENT, VOLATILE BY VOLUME (%)	95	EVAPORATION RATE (BU AC = 1)	0.10
SOLUBILITY IN WATER	COMPLETE		
VISCOSITY	SEMI-VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED)	FLAMMABLE LIMITS	LEL	UEL
NON-FLAM		N/A	N/A

EXTINGUISHING MEDIA "ALCOHOL"
<--FOAM <--FOAM <--CO2 <--DRY CHEMICAL <--WATER SPRAY <--OTHER

SPECIAL FIRE FIGHTING PROCEDURES

N/A

UNUSUAL FIRE & EXPLOSION HAZARDS

N/A

NFPA HAZARD RATING (0=INSIGNIFICANT;1=SLIGHT;2=MODERATE;3=HIGH;4=EXTREME):
2 <--HEALTH 0 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE :

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

EFFECTS OF OVEREXPOSURE - ACUTE - (SHORT TERM EXPOSURE)

INHALATION - MIST CAN BE IRRITATING TO THE LUNGS.

2/3

EYE CONTACT - IRRITATING TO THE EYES AND CAN CAUSE REDDENING AND TEARING.
INGESTION - IRON INTOXICATION INCLUDE VOMITING, DIARRHEA, LETHARGY IRRITABILITY AND ABDOMINAL PAIN.
- CHRONIC - (LONG TERM EXPOSURE)
REPEATED EXPOSURE BY INHALATION IS IRRITATING TO THE LUNGS. THE EYES WILL BE SEVERELY IRRITATED WITH REPEATED EXPOSURE. REPEATED INGESTION CAN LEAD TO SEIZURES, COMA AND POSSIBLY DEATH.

PRIMARY ROUTE OF ENTRY: <-- INHALATION <-- INGESTION X<-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION :
GET PERSON OUT OF CONTAMINATED AREA TO FRESH AIR. IF BREATHING HAS STOPPED, ARTIFICIAL RESPIRATION SHOULD BE STARTED. OXYGEN MAY BE ADMINISTERED, IF READILY AVAILABLE. SEEK MEDICAL ATTENETION IMMEDIATELY.

EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES HOLDING EYELIDS APART TO INSURE FLUSHING OF THE EYE SURFACE. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:
IMMEDIATELY WASH CONTAMINATED SKIN WITH PLENTY OF SOAP AND WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION IMMEDIATELY.

INGESTION :
CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY. IF VICTIM IS CONSCIOUS, GIVE LARGE AMOUNTS OF WATER TO DILUTE STOMACH CONTENTS.

NOTES TO PHYSICIAN :
DESFERRIOXAMINE METHANESULFONATE IS A FE CHELATOR.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC	NTP	OSHA	ACGIH	OTHER
<--YES X<--NO	<--YES X<--NO	<--YES X<--NO	<--YES X<--NO	<--YES X<--NO

IRON SULFATE
ORL-RAT LD50: 319MG/KG 1.
OTR-HAM: EMB 0.9MMO1/L 1.
SCU-MUS TDLO: 16OOMG/KG/16W-1:ETA 1.
ORL-CHD TDLO: 2OMG/KG: CNS 1.

SECTION VII - REACTIVITY DATA

	X<--STABLE	<--UNSTABL	CONDITIONS TO AVOID
STABILITY	N/A		

INCOMPATIBILITY (MATERIALS TO AVOID)

DO NOT MIX WITH LIME BECAUSE IT IS NEUTRALIZING AGENT.

HAZARDOUS DECOMPOSITION PRODUCTS

HEATING TO DECOMPOSITION FORMS SO2; STRONG ALKALIES RELEASE NH3.

	X	WILL NOT <--OCCUR	MAY <--OCCUR	CONDITIONS TO AVOID
HAZARDOUS POLYMERIZATION	N/A			

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
STOP LEAK. CONTAIN SPILL. COLLECT AS MUCH OF THE MATERIAL AND REUSE IF POSSIBLE. WASH CONTAMINATED AREA WITH A DETERGENT AND FLUSH DOWN DRAIN.

WASTE DISPOSAL METHOD
WASTE RESULTING FROM THE USE OF THIS PRODUCT, IF THEY CAN NOT BE USED ACCORDING TO THE LABELED INSTRUCTIONS, MAY BE NEUTRALIZED WITH LIME AND TREAT FOR IRON REMOVAL.

NEUTRALIZING AGENT

NEUTRALIZE WITH LIME.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION
THE WORK AREA SHOULD BE PROVIDED WITH ADEQUATE LOCAL EXHAUST VENTILATION IN CONFINED AREAS.

RESPIRATORY PROTECTION
TYPICAL USE OF THIS PRODUCT DOES NOT REQUIRE THE USE OF A RESPIRATOR. IF PRODUCT IS MISTED, USE NIOSH APPROVED MASK FOR SPRAY MIST.

PROTECTIVE GLOVES
N/A

EYE PROTECTION
CHEMICAL GOGGLES IF METHOD OF USE PRESENTS THE LIKELIHOOD OF EYE CONTACT.

OTHER PROTECTION
N/A

STORAGE TEMPERATURE 120 F.<--MAX 35 F.<--MIN	INDOOR X	HEATED	REFRIGERATED	OUTDOOR

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
KEEP CONTAINER CLOSED. STORE IN A COOL, DRY PLACE. STORE IN ORIGINAL CONTAINER. IF STORED OUTDOORS, PLACE THE CONTAINER ON ITS SIDE TO PREVENT WATER COLLECTING ON THE TOP OF THE DRUM. WASH THOROUGHLY AFTER HANDLING.

OTHER PRECAUTIONS
AVOID CONTAMINATING WATER SOURCES. DO NOT GRAZE ANIMALS ON TREATED AREAS. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. READ ENTIRE LABEL BEFORE USING.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C.A.S. NUMBER	UPPER % LIMIT
N/A		

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372.

IF UE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND LABELED FOR MAINTAINING MOTOR VEHICLES.

CALIFORNIA PROPOSITION 65
WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE (1) CANCER OR (2) BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: Chromium (1) and Lead (1)(2) as trace contaminants.

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

APPLICABLE REGULATIONS
<--49 CFR <--IMCO <--TARIFF 6 D <--IATA <--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS	ID NUMBER	REPORT QTY

LABELS	LIMITED QTY
UNIT CONTAINER	
DOT SPS CONTAINER	NET EXPLOSIVE WT.
AEROSOL PROPELLANT(S)	

SECTION XIII - REFERENCES

1. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION, N. IRVING SAX.

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