Chem-Impex International Inc.

Tel: (630) 766-2112 E-mail: <u>sales@chemimpex.com</u> Shipping and Correspondence: 935 Dillon Drive Wood Dale, IL 60191 USA

Fax: (630) 766-2218 Web site: <u>www.chemimpex.com</u> Manufacturing site: 825 Dillon Drive Wood Dale, IL 60191 USA

SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	01603
NAME:	Iron(III) chloride hexahydrate
SYNONYMS:	Ferric chloride hexahydrate
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) ACUTE TOXICITY, ORAL (CATEGORY 4), H302 SKIN IRRITATION (CATEGORY 2), H315

SERIOUS EYE DAMAGE (CATEGORY 1), H318

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

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM



SIGNAL WORD

HAZARD STATEMENT(S)

H302	HARMFUL IF SWALLOWED.
H315	CAUSES SKIN IRRITATION.
H318	CAUSES SERIOUS EYE DAMAGE.

PRECAUTIONARY STATEMENT(S)

P264	WASH SKIN THOROUGHLY AFTER HANDLING.
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS
	PRODUCT.
P280	WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE
	PROTECTION/ FACE PROTECTION.
P301 + P312 + P330	IF SWALLOWED: CALL A POISON CENTER/ DOCTOR IF YOU
	FEEL UNWELL. RINSE MOUTH.
P302 + P352	IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
P305 + P351 + P338 +	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL
P310	MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND
	EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A
	POISON CENTER/ DOCTOR.
P332 + P313	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/
	ATTENTION.
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE
	REUSE.
P501	DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED
	WASTE DISPOSAL PLANT.
HAZARDS NOT	NONE

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:	FeCl ₃ ·6H ₂ O
MW:	270.3
CAS-NO.	10025-77-1

PURITY: $\geq 97\%$ (Assay by titration)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION	
Iron(III) chloride hexahydrate			
	ACUTE TOX. 4; SKIN IRRIT. 2; EYE DAM. 1; H302, H315, H318 CONCENTRATION LIMITS: >= 1 %: MET. CORR. 1, H290;	<= 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	FIRST AIDERS NEED TO PROTECT THEMSELVES. SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.
IF INHALED	AFTER INHALATION: FRESH AIR. CALL IN PHYSICIAN.
IN CASE OF SKIN CONTACT	IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CALL A PHYSICIAN IMMEDIATELY.
IN CASE OF EYE CONTACT	AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.
IF SWALLOWED	AFTER SWALLOWING: MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST), AVOID VOMITING (RISK OF PERFORATION). CALL A PHYSICIAN IMMEDIATELY. DO NOT ATTEMPT TO NEUTRALISE.
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	SUITABLE EXTINGUISHING MEDIA USE EXTINGUISHING MEASURES THAT ARE APPROPRIATE TO LOCAL CIRCUMSTANCES AND THE SURROUNDING ENVIRONMENT.
	UNSUITABLE EXTINGUISHING MEDIA FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF EXTINGUISHING AGENTS ARE GIVEN.
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	HYDROGEN CHLORIDE GAS IRON OXIDES NOT COMBUSTIBLE. AMBIENT FIRE MAY LIBERATE HAZARDOUS VAPOURS.
ADVICE FOR FIREFIGHTERS	STAY IN DANGER AREA ONLY WITH SELF-CONTAINED BREATHING APPARATUS. PREVENT SKIN CONTACT BY KEEPING A SAFE DISTANCE OR BY WEARING SUITABLE PROTECTIVE CLOTHING.
FURTHER INFORMATION	SUPPRESS (KNOCK DOWN) GASES/VAPORS/MISTS WITH A WATER SPRAY JET. PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR THE GROUND WATER SYSTEM.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES ENVIRONMENTAL PRECAUTIONS	ADVICE FOR NON-EMERGENCY PERSONNEL: AVOID INHALATION OF DUSTS. AVOID SUBSTANCE CONTACT. ENSURE ADEQUATE VENTILATION. EVACUATE THE DANGER AREA, OBSERVE EMERGENCY PROCEDURES, CONSULT AN EXPERT. FOR PERSONAL PROTECTION SEE SECTION 8. DO NOT LET PRODUCT ENTER DRAINS.
METHODS AND	COVER DRAINS. COLLECT, BIND, AND PUMP OFF
MATERIALS FOR	SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS
CONTAINMENT AND	(SEE SECTIONS 7 AND 10). TAKE UP DRY. DISPOSE OF
CLEANING UP	PROPERLY. CLEAN UP AFFECTED AREA. AVOID
REFERENCE TO OTHER	GENERATION OF DUSTS.
SECTIONS	FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE FOR PRECAUTIONS SEE SECTION 2.2. **HANDLING**

CONDITIONS FOR SAFE	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND
STORAGE, INCLUDING	WELL-VENTILATED PLACE.
ANY INCOMPATIBILITIES	KEEP IN A DRY PLACE.

HYGROSCOPIC!

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

COMPONENT	CAS-NO.	VALUE	CONTROL	BASIS
			PARAMETERS	
Iron(III) chloride	10025-77-1	TWA	1 MG/M3	USA. ACGIH
hexahydrate				THRESHOLD LIMIT
				VALUES (TLV)
		TWA	1 MG/M3	USA. NIOSH
				RECOMMENDED
				EXPOSURE LIMITS
		PEL	1 MG/M3	CALIFORNIA
				PERMISSIBLE
				EXPOSURE LIMITS FOR
				CHEMICAL
				CONTAMINANTS (TITLE
				8, ARTICLE 107)

INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS

PREDICTED NO EFFECT CONCENTRATION (PNEC)

COMPARTMENT	VALUE
FRESH WATER SEDIMENT	49.5 MG/KG
REMARKS	AS FE
SEA WATER	49.5 MG/KG
	AS FE
SEWAGE TREATMENT PLANT	500 MG/L
	AS FE
SOIL	55.5 MG/KG
	AS FE

EXPOSURE CONTROLS

APPROPRIATE	IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY
ENGINEERING	PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE
CONTROLS	AFTER WORKING WITH SUBSTANCE.

PERSONAL PROTECTIVE EQUIPMENT

- EYE/FACEUSE EQUIPMENT FOR EYE PROTECTION TESTED ANDPROTECTIONAPPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS
SUCH AS NIOSH (US) OR EN 166(EU). TIGHTLY FITTING
SAFETY GOGGLES
- SKIN PROTECTIONTHIS RECOMMENDATION APPLIES ONLY TO THE PRODUCT
STATED IN THE SAFETY DATA SHEET, SUPPLIED BY US AND
FOR THE DESIGNATED USE. WHEN DISSOLVING IN OR
MIXING WITH OTHER SUBSTANCES AND UNDER CONDITIONS
DEVIATING FROM THOSE STATED IN EN 16523-1 PLEASE
CONTACT THE SUPPLIER OF CE-APPROVED GLOVES.

FULL CONTACT MATERIAL: NITRILE RUBBER MINIMUM LAYER THICKNESS: 0.11 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED:KCL 741 DERMATRIL L

THIS RECOMMENDATION APPLIES ONLY TO THE PRODUCT STATED IN THE SAFETY DATA SHEET, SUPPLIED BY US AND FOR THE DESIGNATED USE. WHEN DISSOLVING IN OR MIXING WITH OTHER SUBSTANCES AND UNDER CONDITIONS DEVIATING FROM THOSE STATED IN EN 16523-1 PLEASE CONTACT THE SUPPLIER OF CE-APPROVED GLOVES.

SPLASH CONTACT MATERIAL: NITRILE RUBBER MINIMUM LAYER THICKNESS: 0.11 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED:KCL 741 DERMATRIL L

BODY PROTECTIONCOMPLETE 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	RECOMMENDED FILTER TYPE: FILTER B-(P2) THE ENTREPENEUR HAS TO ENSURE THAT MAINTENANCE, CLEANING AND TESTING OF RESPIRATORY PROTECTIVE DEVICES ARE CARRIED OUT ACCORDING TO THE INSTRUCTIONS OF THE PRODUCER. THESE MEASURES HAVE TO BE PROPERLY DOCUMENTED. REQUIRED WHEN DUSTS ARE GENERATED. OUR RECOMMENDATIONS ON FILTERING RESPIRATORY PROTECTION ARE BASED ON THE FOLLOWING STANDARDS: DIN EN 143, DIN 14387 AND OTHER ACCOMPANYING STANDARDS RELATING TO THE USED RESPIRATORY PROTECTION SYSTEM.
CONTROL OF ENVIRONMENTAL EXPOSURE	DO NOT LET PRODUCT ENTER DRAINS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC	PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE	Yellow to yellow-orange/brown solid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING	
POINT/FREEZING POINT	
INITIAL BOILING POINT	280 - 285 °C
AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID,	DOES NOT IGNITE - A.10. (REGULATION (EC) NO
GAS)	440/2008, ANNEX A)THE PRODUCT IS NOT FLAMMABLE.
UPPER/LOWER	NO DATA AVAILABLE
FLAMMABILITY OR	
EXPLOSIVE LIMITS	
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	SOLUBLE
PARTITION COEFFICIENT:	NOT APPLICABLE FOR INORGANIC SUBSTANCES
N- OCTANOL/WATER	
AUTO-IGNITION	NO DATA AVAILABLE
TEMPERATURE	
DECOMPOSITION	NO DATA AVAILABLE
TEMPERATURE	
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE
OTHER SAFETY	NO DATA AVAILABLE
INFORMATION	

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY NO DATA AVAILABLE CHEMICAL STABILITY THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS (ROOM TEMPERATURE). **POSSIBILITY OF RISK OF EXPLOSION WITH:** HAZARDOUS ALKALI METALS REACTIONS ETHYLENE OXIDE **CONDITIONS TO AVOID** EXPOSURE TO MOISTURE. INCOMPATIBLE MILD STEEL METALS

HAZARDOUSIN THE EVENT OF FIRE: SEE SECTION 5DECOMPOSITIONPRODUCTS

SECTION 11. TOXICOLOGICAL INFORMATION

MATERIALS

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - RAT - 316 MG/KG REMARKS: (RTECS) THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING SUBSTANCES: IRON(III) CHLORIDE INHALATION: NO DATA AVAILABLE

> LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000 MG/KG (OECD TEST GUIDELINE 402) REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING SUBSTANCES: IRON DICHLORIDE

NO DATA AVAILABLE

SKIN	SKIN RABBIT
CORROSION/IRRITATION	RESULT: IRRITATING
	REMARKS: (IUCLID)

SERIOUS EYE DAMAGE/EYE IRRITATION	EYES RABBIT RESULT: SEVERE IRRITATIONS (OECD TEST GUIDELINE 405)
RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	TEST TYPE: AMES TEST METHOD: OECD TEST GUIDELINE 471 RESULT: NEGATIVE
	TEST TYPE: MUTAGENICITY (MAMMAL CELL TEST): MICRONUCLEUS. METHOD: OECD TEST GUIDELINE 487 RESULT: NEGATIVE
	TEST TYPE: IN VIVO MICRONUCLEUS TEST SPECIES: MOUSE RESULT: NEGATIVE REMARKS: (EXTERNAL MSDS)
CARCINOGENICITY	
IARC:	NO INGREDIENT 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 INGREDIENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED

CARCINOGEN BY NTP.

NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.

OSHA:

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN NO DATA AVAILABLE **TOXICITY - SINGLE** EXPOSURE SPECIFIC TARGET ORGAN NO DATA AVAILABLE

TOXICITY - REPEATED EXPOSURE

ASPIRATION HAZARD NO DATA AVAILABLE ADDITIONALREPEATED DOSE TOXICITY - RAT - MALE - ORAL - 98INFORMATIOND - NOAEL (NO OBSERVED ADVERSE EFFECT LEVEL) -
277 MG/KG
REMARKS: SUBCHRONIC TOXICITY

RTECS: NO5425000

OVERDOSE OF IRON COMPOUNDS MAY HAVE A CORROSIVE EFFECT ON THE GASTROINTESTINAL MUCOSA AND BE FOLLOWED BY NECROSIS, PERFORATION, AND STRICTURE FORMATION. SEVERAL HOURS MAY ELAPSE BEFORE SYMPTOMS THAT CAN INCLUDE EPIGASTRIC PAIN, DIARRHEA, VOMITING, NAUSEA, AND HEMATEMESIS OCCUR. AFTER APPARENT RECOVERY A PERSON MAY EXPERIENCE METABOLIC ACIDOSIS, CONVULSIONS, AND COMA HOURS OR DAYS LATER. FURTHER COMPLICATIONS MAY DEVELOP LEADING TO ACUTE LIVER NECROSIS THAT CAN RESULT IN DEATH DUE TO HEPATIC COMA.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ECOLOGICAL INFORMATION

ΤΟΧΙCITY	NO DATA AVAILABLE
PERSISTENCE AND DEGRADABILITY	NOT APPLICABLE FOR INORGANIC SUBSTANCES
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	PRODUCT REACTS WITH WATER.
	THE FOLLOWING MAY DEVELOP AFTER REACTION OF THE PRODUCT WITH WATER: HYDROCHLORIC ACID DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCTWASTE MATERIAL MUST BE DISPOSED OF IN
ACCORDANCE WITH THE NATIONAL AND LOCAL
REGULATIONS. LEAVE CHEMICALS IN ORIGINAL
CONTAINERS. NO MIXING WITH OTHER WASTE.
HANDLE UNCLEANED CONTAINERS LIKE THE
PRODUCT ITSELF.

CONTAMINATEDDISPOSE OF AS UNUSED PRODUCT.PACKAGINGDispose of a subscription

SECTION 14. TRANSPORT INFORMATION

DOT (US) PROPER SHIPPING NAME: UN NUMBER: CLASS: PACKING GROUP: REPORTABLE QUANTITY (RQ): POISON INHALATION HAZARD:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (IRON TRICHLORIDE HEXAHYDRATE) 3077 9 III 1000 LBS NO
IMDG	NOT DANGEROUS GOODS
IATA	NOT DANGEROUS GOODS

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.
SARA 313 COMPONENTS	THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.
SARA 311/312 HAZARDS	ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

Iron(III) chloride hexahydrateCAS-NO.REVISION DATE10025-77-110025-77-1

SECTION 16. OTHER INFORMATION

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

H302	HARMFUL IF SWALLOWED.
H315	CAUSES SKIN IRRITATION.
H318	CAUSES SERIOUS EYE DAMAGE.

MSDS LEGEND	
MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENENTAL
	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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