# Chem-Impex International Inc.

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# SAFETY DATA SHEET

## SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 32002

NAME: Hydrochloric acid

SYNONYMS:

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) CORROSIVE TO METALS (CATEGORY 1), H290 SKIN CORROSION (CATEGORY 1B), H314 SERIOUS EYE DAMAGE (CATEGORY 1), H318

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)

H290 MAY BE CORROSIVE TO METALS.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H335 MAY CAUSE RESPIRATORY IRRITATION.

PRECAUTIONARY STATEMENT(S)

P234 KEEP ONLY IN ORIGINAL CONTAINER.

P261 AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/

SPRAY.

P264 WASH SKIN THOROUGHLY AFTER HANDLING.

P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE

PROTECTION/ FACE PROTECTION.

P301 + P330 + P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE

VOMITING.

P303 + P361 + P353 IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY

ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/

SHOWER.

P304 + P340 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT

REST IN A POSITION COMFORTABLE FOR BREATHING.

P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL

MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND

EASY TO DO. CONTINUE RINSING.

P310 IMMEDIATELY CALL A POISON CENTER OR DOCTOR/

PHYSICIAN.

P321 SPECIFIC TREATMENT (SEE SUPPLEMENTAL FIRST AID

INSTRUCTIONS ON THIS LABEL).

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.
P390 ABSORB SPILLAGE TO PREVENT MATERIAL DAMAGE.
P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER

TIGHTLY CLOSED.

P405 STORE LOCKED UP.

P406 STORE IN CORROSIVE RESISTANT STAINLESS STEEL

CONTAINER WITH A RESISTANT INNER LINER.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

WASTE DISPOSAL PLANT.

HAZARDS NOT NONE

**OTHERWISE** 

CLASSIFIED (HNOC) OR NOT COVERED

**BY GHS** 

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: HC1

MW: 36.46

7647-01-0 CAS-NO.

PURITY: 36.5 - 38.0% (Assay by titration)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION				
HYDROCHLORIC ACID						
	MET. CORR. 1; SKIN CORR. 1B;	30 - 50 %				
	EYE DAM. 1; STOT SE 3; H290,					
	H314, H335					

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** 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** 

TAKE OFF CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH OFF WITH SOAP AND PLENTY OF

WATER. CONSULT A PHYSICIAN.

IN CASE OF EYE

RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT **CONTACT** 

LEAST 15 MINUTES AND CONSULT A

PHYSICIAN.CONTINUE RINSING EYES DURING

TRANSPORT TO HOSPITAL.

IF SWALLOWED DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING

> BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.

MOST IMPORTANT **SYMPTOMS AND** 

THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

SECTION 2.2) AND/OR IN SECTION 11

**EFFECTS, BOTH ACUTE** AND DELAYED

INDICATION OF ANY **IMMEDIATE MEDICAL ATTENTION AND** SPECIAL TREATMENT **NEEDED** 

NO DATA AVAILABLE

#### SECTION 5. FIRE AND EXPLOSION DATA

**EXTINGUISHING MEDIA** 

SUITABLE USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY

**EXTINGUISHING MEDIA** CHEMICAL OR CARBON DIOXIDE.

SPECIAL HAZARDS HYDROGEN CHLORIDE GAS

ARISING FROM THE

SUBSTANCE OR MIXTURE

ADVICE FOR WEAR SELF CONTAINED BREATHING APPARATUS FOR

FIRE FIGHTING IF NECESSARY. **FIREFIGHTERS** 

**FURTHER INFORMATION** NO DATA AVAILABLE

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL** WEAR RESPIRATORY PROTECTION. AVOID BREATHING

PRECAUTIONS, VAPOURS, MIST OR GAS. ENSURE ADEQUATE **PROTECTIVE** VENTILATION. EVACUATE PERSONNEL TO SAFE

**EQUIPMENT AND** AREAS.

**EMERGENCY** FOR PERSONAL PROTECTION SEE SECTION 8.

**PROCEDURES** 

**ENVIRONMENTAL** DO NOT LET PRODUCT ENTER DRAINS.

**PRECAUTIONS** 

**METHODS AND** SOAK UP WITH INERT ABSORBENT MATERIAL AND MATERIALS FOR DISPOSE OF AS HAZARDOUS WASTE, KEEP IN **CONTAINMENT AND** SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

**CLEANING UP** 

REFERENCE TO OTHER FOR DISPOSAL SEE SECTION 13.

**SECTIONS** 

# **SECTION 7. HANDLING AND STORAGE**

**PRECAUTIONS FOR SAFE** AVOID CONTACT WITH SKIN AND EYES. AVOID

**HANDLING** INHALATION OF VAPOUR OR MIST. FOR PRECAUTIONS

SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT

UPRIGHT TO PREVENT LEAKAGE.

**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	BASIS	
			PARAMETERS		
HYDROCHLORIC	7647-01-0	С	2 PPM	USA. ACGIH	
ACID				THRESHOLD	
				LIMIT VALUES	
				(TLV)	
	REMARKS	UPPER RES	UPPER RESPIRATORY TRACT IRRITATION		
		NOT CLASS	NOT CLASSIFIABLE AS A HUMAN CARCINOGEN		
		C	5 PPM	USA. NIOSH	
			7 MG/M3	RECOMMENDED	
				EXPOSURE	
				LIMITS	
		OFTEN USE	OFTEN USED IN AN AQUEOUS SOLUTION.		
		C	5 PPM	USA.	
			7 MG/M3	OCCUPATIONAL	
				EXPOSURE	
				LIMITS	
				(OSHA) - TABLE	
				Z-1 LIMITS FOR	
				AIR	
				CONTAMINANTS	
			THE VALUE IN MG/M3 IS APPROXIMATE. CEILING LIMIT IS TO BE DETERMINED FROM BREATHING-ZONE AIR SAMPLES.		
		C	5 PPM	USA. OSHA -	
			7 MG/M3	TABLE Z-1	
				LIMITS FOR	
				AIR	
				CONTAMINANTS	
				- 1910.1000	

#### **EXPOSURE CONTROLS**

APPROPRIATEHANDLE IN ACCORDANCE WITH GOOD INDUSTRIALENGINEERINGHYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE

**CONTROLS** BREAKS AND AT THE END OF WORKDAY.

#### PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION TIGHTLY FITTING SAFETY GOGGLES. FACESHIELD (8-

INCH MINIMUM). 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.

FULL CONTACT

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.11 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

SPLASH CONTACT

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.11 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED: DERMATRIL (KCL 740, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER

SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER

FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF

ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR

ANY SPECIFIC USE SCENARIO.

**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 FULL-FACE RESPIRATOR WITH MULTI- PURPOSE COMBINATION

(US) OR TYPE ABEK (EN 14387) 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 DO NOT LET PRODUCT ENTER DRAINS.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless liquid free from suspended matter or sediment

ODOUR PUNGENT

ODOUR THRESHOLD NO DATA AVAILABLE NO DATA AVAILABLE

MELTING

POINT/FREEZING POINT INITIAL BOILING POINT AND BOILING RANGE

FLASH POINT

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, NO DATA AVAILABLE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE 227 HPA (170 MMHG) AT 21.1 C, 547 HPA (410 MMHG) AT

37.7 C

VAPOUR DENSITY NO DATA AVAILABLE RELATIVE DENSITY 1.2 g/mL at 25 °C (Lit.)

WATER SOLUBILITY SOLUBLE

PARTITION COEFFICIENT: NO DATA AVAILABLE

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 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 NO DATA AVAILABLE

**INCOMPATIBLE** BASES, AMINES, ALKALI METALS, METALS,

**MATERIALS** PERMANGANATES, E.G. POTASSIUM PERMANGANATE,

FLUORINE, METAL ACETYLIDES, HEXALITHIUM

DISILICIDE

HAZARDOUS OTHER DECOMPOSITION PRODUCTS - NO DATA

**DECOMPOSITION** AVAILABLE

**PRODUCTS** IN THE EVENT OF FIRE: SEE SECTION 5

## SECTION 11. TOXICOLOGICAL INFORMATION

# INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY INHALATION: NO DATA AVAILABLE (HYDROCHLORIC

ACID)

DERMAL: NO DATA AVAILABLE (HYDROCHLORIC

ACID)

**SKIN** SKIN - RABBIT

**CORROSION/IRRITATION** RESULT: CAUSES BURNS.

**SERIOUS EYE** EYES - RABBIT (HYDROCHLORIC ACID) RESULT:

**DAMAGE/EYE IRRITATION** CORROSIVE TO EYES

RESPIRATORY OR SKIN

**SENSITISATION** 

NO DATA AVAILABLE (HYDROCHLORIC ACID)

GERM CELL NO DATA AVAILABLE (HYDROCHLORIC ACID)

MUTAGENICITY

**CARCINOGENICITY** THIS PRODUCT IS OR CONTAINS A COMPONENT THAT

IS NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY

BASED ON ITS IARC, ACGIH, NTP, OR EPA CLASSIFICATION. (HYDROCHLORIC ACID)

(HYDROCHLORIC ACID) (HYDROCHLORIC ACID)

IARC: 3 - GROUP 3: NOT CLASSIFIABLE AS TO ITS

CARCINOGENICITY TO HUMANS (HYDROCHLORIC

ACID)

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 IDENTIFIED AS A CARCINOGEN OR POTENTIAL

CARCINOGEN BY OSHA.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE (HYDROCHLORIC ACID)

SPECIFIC TARGET ORGAN TOXICITY - SINGLE

**EXPOSURE** 

THE SUBSTANCE OR MIXTURE IS CLASSIFIED AS SPECIFIC TARGET ORGAN TOXICANT, SINGLE

EXPOSURE, CATEGORY 3 WITH RESPIRATORY TRACT

IRRITATION. (HYDROCHLORIC ACID)

SPECIFIC TARGET ORGAN TOXICITY - REPEATED

**EXPOSURE** 

NO DATA AVAILABLE (HYDROCHLORIC ACID)

**ASPIRATION HAZARD** NO DATA AVAILABLE (HYDROCHLORIC ACID)

ADDITIONAL

RTECS: MW4025000

INFORMATION BURNING SENSATION, COUGH, WHEEZING,

LARYNGITIS, SHORTNESS OF BREATH, SPASM, INFLAMMATION AND EDEMA OF THE LARYNX, SPASM, INFLAMMATION AND EDEMA OF THE BRONCHI, PNEUMONITIS, PULMONARY EDEMA, MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE

OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN.

(HYDROCHLORIC ACID)

### SECTION 12. ECOLOGICAL INFORMATION

**TOXICITY** 

TOXICITY TO FISH LC50 - GAMBUSIA AFFINIS (MOSQUITO FISH) - 282

MG/L - 96 H (HYDROCHLORIC ACID)

PERSISTENCE AND DEGRADABILITY

NO DATA AVAILABLE

**BIOACCUMULATIVE** 

**POTENTIAL** 

NO DATA AVAILABLE

MOBILITY IN SOIL NO DATA AVAILABLE (HYDROCHLORIC ACID)

**RESULTS OF PBT AND** PBT/VPVB ASSESSMENT NOT AVAILABLE AS

VPVB ASSESSMENT 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. 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: HYDROCHLORIC ACID

UN NUMBER: 1789 CLASS: 8 PACKING GROUP: II

REPORTABLE QUANTITY 13514 LBS

(RO):

MARINE POLLUTANT: NO POISON INHALATION NO

HAZARD:

**IMDG** 

PROPER SHIPPING NAME: HYDROCHLORIC ACID

UN NUMBER: 1789 CLASS: 8 PACKING GROUP: II

EMS-NO: F-A, S-B MARINE POLLUTANT: NO

**IATA** 

PROPER SHIPPING NAME: HYDROCHLORIC ACID

UN NUMBER: 1789 CLASS: 8 PACKING GROUP: II

#### SECTION 15. REGULATORY INFORMATION

**SARA 302 COMPONENTS** SARA 302: 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

Hydrochloric acid 7647-01-0 4/24/1993

SARA 311/312 HAZARDS ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

Hydrochloric acid 7647-01-0 4/24/1993

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

WATER 7732-18-5 4/24/1993 Hydrochloric acid 7647-01-0 4/24/1993

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

WATER 7732-18-5 4/24/1993 Hydrochloric acid 7647-01-0 4/24/1993

**CALIFORNIA PROP. 65** 

**COMPONENTS** KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER,

BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS

HARM.

# SECTION 16. OTHER INFORMATION

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

EYE DAM. SERIOUS EYE DAMAGE

H290 MAY BE CORROSIVE TO METALS.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H318 CAUSES SERIOUS EYE DAMAGE.

H335 MAY CAUSE RESPIRATORY IRRITATION.

MET. CORR. CORROSIVE TO METALS

SKIN CORR. SKIN CORROSION

STOT SE SPECIFIC TARGET ORGAN TOXICITY - SINGLE

**EXPOSURE** 

**HMIS RATING** 

HEALTH HAZARD: 3

CHRONIC HEALTH

HAZARD:

FLAMMABILITY: 0 PHYSICAL HAZARD 0

NFPA RATING

HEALTH HAZARD: 3
FIRE HAZARD: 0
REACTIVITY HAZARD: 0

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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