

# *Chem-Impex International Inc.*

---

Tel: (630) 766-2112  
E-mail: [sales@chemimpex.com](mailto:sales@chemimpex.com)  
**Shipping and Correspondence:**  
935 Dillon Drive  
Wood Dale, IL 60191 USA

Fax: (630) 766-2218  
Web site: [www.chemimpex.com](http://www.chemimpex.com)  
**Manufacturing site:**  
825 Dillon Drive  
Wood Dale, IL 60191 USA

## SAFETY DATA SHEET

---

### SECTION 1. CHEMICAL IDENTIFICATION

---

CATALOG #:	29567
NAME:	Oxalyl chloride
SYNONYMS:	Ethanedioyl dichloride
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, INHALATION (CATEGORY 3), H331  
SKIN CORROSION (CATEGORY 1A), 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)**

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H318 CAUSES SERIOUS EYE DAMAGE.

H331 TOXIC IF INHALED.

H335 MAY CAUSE RESPIRATORY IRRITATION.

**PRECAUTIONARY STATEMENT(S)**

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 + P310 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/ PHYSICIAN.

P305 + P351 + P338 + P310 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON CENTER OR DOCTOR/ PHYSICIAN.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.

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**

REACTS VIOLENTLY WITH WATER., CONTACT WITH WATER LIBERATES TOXIC GAS.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

---

MF: C<sub>2</sub>Cl<sub>2</sub>O<sub>2</sub>

MW: 126.93

CAS-NO. 79-37-8

PURITY: ≥ 99% (GC)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>OXALYL CHORIDE</b>		
	ACUTE TOX. 3; SKIN CORR. 1A; EYE DAM. 1; STOT SE 3; H314, H318, H331, H335	≤ 100 %
<b>TRICHLOROACETYL CHLORIDE</b>		
	ACUTE TOX. 4; ACUTE TOX. 1; SKIN CORR. 1B; EYE DAM. 1; H302, H314, H330	>= 0.1 - < 1 %
<b>PHOSGENE</b>		
	ACUTE TOX. 1; SKIN CORR. 1B; EYE DAM. 1; H314, H330	>= 0.1 - < 1 %

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**

<b>GENERAL ADVICE</b>	MOVE OUT OF DANGEROUS AREA. CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.
<b>IF INHALED</b>	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	TAKE OFF CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	CONTINUE RINSING EYES DURING TRANSPORT TO HOSPITAL. RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
<b>IF SWALLOWED</b>	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE

**EFFECTS, BOTH ACUTE AND DELAYED** 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

**SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE** CARBON OXIDES, HYDROGEN CHLORIDE GAS

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

**FURTHER INFORMATION** NO DATA AVAILABLE

---

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

---

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES** WEAR RESPIRATORY PROTECTION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS.  
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** SOAK UP WITH INERT ABSORBENT MATERIAL AND DISPOSE OF AS HAZARDOUS WASTE. DO NOT FLUSH WITH WATER. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

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

---

## SECTION 7. HANDLING AND STORAGE

---

<b>PRECAUTIONS FOR SAFE HANDLING</b>	AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. FOR PRECAUTIONS SEE SECTION 2.2.
<b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	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. NEVER ALLOW PRODUCT TO GET IN CONTACT WITH WATER DURING STORAGE. STORE UNDER INERT GAS. STORAGE CLASS (TRGS 510): NON-COMBUSTIBLE, ACUTE TOXIC CAT.3 / TOXIC HAZARDOUS MATERIALS OR HAZARDOUS MATERIALS CAUSING CHRONIC EFFECTS
<b>SPECIFIC END USE(S)</b>	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### CONTROL PARAMETERS

<b>COMPONENTS WITH WORKPLACE CONTROL PARAMETERS</b>	CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.
---	---

### EXPOSURE CONTROLS

<b>APPROPRIATE ENGINEERING CONTROLS</b>	AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.
---	---

### PERSONAL PROTECTIVE EQUIPMENT

<b>EYE/FACE PROTECTION</b>	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.

**SPLASH CONTACT**

MATERIAL: BUTYL-RUBBER

MINIMUM LAYER THICKNESS: 0.3 MM

BREAK THROUGH TIME: 47 MIN

MATERIAL TESTED: BUTOJECT (KCL 897 , 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, FLAME RETARDANT PROTECTIVE CLOTHING, 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 AXBEK (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**

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

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Colorless or light yellow liquid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	-10 to -8 °C
INITIAL BOILING POINT AND BOILING RANGE	62 - 65 °C
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	200 HPA (150 MMHG) AT 20 °C
VAPOUR DENSITY	4.38 - (AIR = 1.0)
RELATIVE DENSITY	1.50
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	NO DATA AVAILABLE

**OTHER SAFETY INFORMATION**

RELATIVE VAPOUR DENSITY	4.38 - (AIR = 1.0)
-------------------------	--------------------

---

**SECTION 10. STABILITY AND REACTIVITY**

---

<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	REACTS VIOLENTLY WITH WATER.
<b>CONDITIONS TO AVOID</b>	EXPOSURE TO MOISTURE
<b>INCOMPATIBLE MATERIALS</b>	BASES, OXIDIZING AGENTS, ALCOHOLS

**HAZARDOUS  
DECOMPOSITION  
PRODUCTS**

OTHER DECOMPOSITION PRODUCTS - NO DATA  
AVAILABLE.  
IN THE EVENT OF FIRE: SEE SECTION 5

---

**SECTION 11. TOXICOLOGICAL INFORMATION**

---

**INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>ACUTE TOXICITY</b>	LC50 INHALATION - RAT - 1 H - 1840 PPM DERMAL: NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	NO DATA AVAILABLE
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	NO DATA AVAILABLE
<b>RESPIRATORY OR SKIN SENSITISATION</b>	NO DATA AVAILABLE
<b>GERM CELL MUTAGENICITY</b>	NO DATA AVAILABLE
<b>CARCINOGENICITY</b>	
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.
ACGIH:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY ACGIH.
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.
<b>REPRODUCTIVE TOXICITY</b>	NO DATA AVAILABLE
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	INHALATION - MAY CAUSE RESPIRATORY IRRITATION.
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE



<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE
<b>ADDITIONAL INFORMATION</b>	RTECS: NOT AVAILABLE 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.

---

**SECTION 12. ECOLOGICAL INFORMATION**

---

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

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

---

**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	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.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

---

**SECTION 14. TRANSPORT INFORMATION**

---

**DOT (US)**

PROPER SHIPPING NAME: CORROSIVE LIQUIDS, TOXIC, N.O.S.(Oxalyl chloride)  
UN NUMBER: 2922  
CLASS: 8 (6.1)  
PACKING GROUP: I  
REPORTABLE QUANTITY (RQ): 5000 LBS  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: CORROSIVE LIQUID, TOXIC, N.O.S.(Oxalyl chloride)  
UN NUMBER: 2922  
CLASS: 8 (6.1)  
PACKING GROUP: I  
EMS-NO: F-A, S-B

**IATA**

PROPER SHIPPING NAME: CORROSIVE LIQUID, TOXIC, N.O.S.(Oxalyl chloride)  
UN NUMBER: 2922  
CLASS: 8 (6.1)  
PACKING GROUP: I

---

**SECTION 15. REGULATORY INFORMATION**

---

**SARA 302 COMPONENTS** THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 302:

	CAS-NO.	REVISION DATE
PHOSGENE	75-44-5	7/1/2007
TRICHLOROACETYL CHLORIDE	76-02-8	7/1/2007

**SARA 313 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** ACUTE HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

CAS-NO.	REVISION DATE
---------	---------------

TRICHLOROACETYL CHLORIDE	76-02-8	7/1/2007
PHOSGENE	75-44-5	7/1/2007

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Oxalyl chloride	79-37-8	
TRICHLOROACETYL CHLORIDE	76-02-8	7/1/2007
PHOSGENE	75-44-5	7/1/2007

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Oxalyl chloride	79-37-8	7/1/2007

**CALIFORNIA PROP. 65  
COMPONENTS**

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

**SECTION 16. OTHER INFORMATION**

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

ACUTE TOX.	ACUTE TOXICITY
EYE DAM.	SERIOUS EYE DAMAGE
H302	HARMFUL IF SWALLOWED.
H314	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H318	CAUSES SERIOUS EYE DAMAGE.
H330	FATAL IF INHALED.
H331	TOXIC IF INHALED.
H335	MAY CAUSE RESPIRATORY IRRITATION.
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 GOVERNMENTAL INDUSTRIAL  
HYGINISTS  
CAS: CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

**IMPORTANT:**

*THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. IN NO EVENT SHALL **CII** BE LIABLE FOR ANY CLAIMS, LOSSES, OR DAMAGES OF ANY THIRD PARTY OR FOR LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*