

# *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 #: 35289

NAME: Ammonium chloride

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)**  
ACUTE TOXICITY, ORAL (CATEGORY 4), H302  
EYE IRRITATION (CATEGORY 2A), H319  
SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 2), H401

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

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



SIGNAL WORD                   WARNING

**HAZARD STATEMENT(S)**

H302                   HARMFUL IF SWALLOWED.  
H319                   CAUSES SERIOUS EYE IRRITATION.  
H401                   TOXIC TO AQUATIC LIFE

**PRECAUTIONARY STATEMENT(S)**

P264                   WASH SKIN THOROUGHLY AFTER HANDLING.  
P270                   DO NOT EAT, DRINK OR SMOKE WHEN USING THIS  
                                PRODUCT.  
P273                   AVOID RELEASE TO THE ENVIRONMENT.  
P280                   WEAR EYE PROTECTION/ FACE PROTECTION.  
P301 + P312 + P330   IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/  
                                PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.  
P305 + P351 + P338   IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL  
                                MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND  
                                EASY TO DO. CONTINUE RINSING.  
P337 + P313           IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/  
                                ATTENTION.  
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:                       NH<sub>4</sub>Cl  
MW:                       53.49  
CAS-NO.                 12125-02-9  
PURITY:                 ≥ 99% (Assay by titration)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>Ammonium chloride</b>		
	ACUTE TOX. 4; EYE IRRIT. 2A; H302, H319	<= 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**

<b>GENERAL ADVICE</b>	CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.
<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>	WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
<b>IF SWALLOWED</b>	NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

---

## **SECTION 5. FIRE AND EXPLOSION DATA**

---

### **EXTINGUISHING MEDIA**

<b>SUITABLE EXTINGUISHING MEDIA</b>	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
<b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	NITROGEN OXIDES (NOX), 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**

USE PERSONAL PROTECTIVE EQUIPMENT. AVOID  
DUST FORMATION. AVOID BREATHING VAPOURS, MIST  
OR GAS. ENSURE ADEQUATE VENTILATION. 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.  
DISCHARGE INTO THE ENVIRONMENT MUST BE  
AVOIDED.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP**

PICK UP AND ARRANGE DISPOSAL WITHOUT  
CREATING DUST. SWEEP UP AND SHOVEL. 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.  
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY INCOMPATIBILITIES**

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND  
WELL-VENTILATED PLACE.  
HYGROSCOPIC. 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
Ammonium chloride	12125-02-9	TWA	10 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	UPPER RESPIRATORY TRACT IRRITATION EYE IRRITATION		
		STEL	20 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		UPPER RESPIRATORY TRACT IRRITATION EYE IRRITATION		
		TWA	10 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		ST	20 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		PEL	10 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		STEL	20 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS

**EXPOSURE CONTROLS****APPROPRIATE ENGINEERING CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT****EYE/FACE PROTECTION**

SAFETY GLASSES WITH SIDE-SHIELDS CONFORMING TO EN166 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**

FOR NUISANCE EXPOSURES USE TYPE P95 (US) OR TYPE P1 (EU EN 143) PARTICLE RESPIRATOR.FOR HIGHER LEVEL PROTECTION USE TYPE OV/AG/P99 (US) OR TYPE ABEK-P2 (EU EN 143) RESPIRATOR CARTRIDGES. 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. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	White crystalline powder
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	4.5 - 5.5 AT 50.00000 G/L AT 20.0 C
MELTING POINT/FREEZING POINT	335 °C (Approx.) (Sublimation 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	1.3 HPA AT 160.4 C
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	1.53
WATER SOLUBILITY	SOLUBLE
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**

BULK DENSITY	500 KG/M3
--------------	-----------

---

**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>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	EXPOSURE TO MOISTURE MAY AFFECT PRODUCT QUALITY.

<b>INCOMPATIBLE MATERIALS</b>	STRONG ACIDS, STRONG BASES, STRONG OXIDIZING AGENTS
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - NITROGEN OXIDES (NOX), HYDROGEN CHLORIDE GAS IN THE EVENT OF FIRE: SEE SECTION 5

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

---

### **INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>ACUTE TOXICITY</b>	LD50 ORAL - RAT - MALE AND FEMALE - 1,410 MG/KG (OECD TEST GUIDELINE 401)  INHALATION: NO DATA AVAILABLE  LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000 MG/KG REMARKS: (ECHA)  NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	SKIN - RABBIT RESULT: NO SKIN IRRITATION - 24 H (DRAIZE TEST)
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	EYES - RABBIT RESULT: EYE IRRITATION REMARKS: (ECHA)
<b>RESPIRATORY OR SKIN SENSITISATION</b>	MAXIMISATION TEST - GUINEA PIG RESULT: NEGATIVE (OECD TEST GUIDELINE 406)
<b>GERM CELL MUTAGENICITY</b>	AMES TEST ESCHERICHIA COLI/SALMONELLA TYPHIMURIUM RESULT: NEGATIVE MUTAGENICITY (MAMMAL CELL TEST): CHROMOSOME ABERRATION. CHINESE HAMSTER LUNG CELLS RESULT: POSITIVE OECD TEST GUIDELINE 474 MOUSE - MALE - BONE MARROW RESULT: NEGATIVE
<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.

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** ACUTE ORAL TOXICITY - IRRITATIONS OF MUCOUS MEMBRANES IN THE MOUTH, PHARYNX, OESOPHAGUS AND GASTROINTESTINAL TRACT. ACUTE INHALATION TOXICITY - POSSIBLE DAMAGES: MUCOSAL IRRITATIONS

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

**ASPIRATION HAZARD** NO DATA AVAILABLE

**ADDITIONAL INFORMATION** REPEATED DOSE TOXICITY - RAT - MALE AND FEMALE - ORAL - 90 D - NO OBSERVED ADVERSE EFFECT LEVEL - 1,695.7 MG/KG SUBCHRONIC TOXICITY RTECS: BP4550000

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

THE FOLLOWING APPLIES TO AMMONIUM SALTS IN GENERAL: AFTER SWALLOWING: LOCAL IRRITATION SYMPTOMS, NAUSEA, VOMITING, DIARRHOEA. SYSTEMIC EFFECT: AFTER THE UPTAKE OF VERY LARGE QANTITIES: DROP IN BLOOD PRESSURE, COLLAPSE, CNS DISORDERS, SPASMS, NARCOTIC CONDITIONS, RESPIRATORY PARALYSIS, HAEMOLYSIS. OTHER DANGEROUS PROPERTIES CAN NOT BE EXCLUDED. HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

---

**SECTION 12. ECOLOGICAL INFORMATION**

---

**TOXICITY**

TOXICITY TO FISH	SEMI-STATIC TEST LC50 - CYPRINUS CARPIO (CARP) - 209.00 MG/L - 96 H REMARKS: (ECHA)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 101 MG/L - 48 H REMARKS: (ECHA)
TOXICITY TO ALGAE	STATIC TEST ERC50 - CHLORELLA VULGARIS (FRESH WATER ALGAE) - 1,300 MG/L - 5 D REMARKS: (ECHA)
TOXICITY TO BACTERIA	STATIC TEST EC50 - ACTIVATED SLUDGE - 1,310 MG/L - 0.5 H (OECD TEST GUIDELINE 209)

**PERSISTENCE AND DEGRADABILITY**

THE METHODS FOR DETERMINING THE BIOLOGICAL DEGRADABILITY ARE NOT APPLICABLE TO 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**

AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL HANDLING OR DISPOSAL.  
TOXIC TO AQUATIC LIFE.

---

**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.

**CONTAMINATED PACKAGING**

DISPOSE OF AS UNUSED PRODUCT.

---

**SECTION 14. TRANSPORT INFORMATION**

---

**DOT (US)**

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCES,  
SOLID, N.O.S.(Ammonium chloride)  
UN NUMBER: 3077  
CLASS: 9  
PACKING GROUP: III  
REPORTABLE QUANTITY (RQ): 5000 LBS  
POISON INHALATION HAZARD: NO

**IMDG**

NOT DANGEROUS GOODS

**IATA**

NOT DANGEROUS GOODS

---

**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** 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**

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

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Ammonium chloride	12125-02-9	04-01-1994

---

**SECTION 16. OTHER INFORMATION**

---

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

H302 HARMFUL IF SWALLOWED.  
H319 CAUSES SERIOUS EYE IRRITATION.  
H401 TOXIC TO AQUATIC LIFE

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:

*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.*

VERSION:3.1.

REVISION DATE: 01/27/2017