### **Chem-Impex International Inc.**

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#### SAFETY DATA SHEET

#### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	29939
NAME:	Osmium tetroxide solution, 4 wt. % in H2O
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 3), H301 ACUTE TOXICITY, INHALATION (CATEGORY 2), H330 ACUTE TOXICITY, DERMAL (CATEGORY 4), H312

#### SKIN IRRITATION (CATEGORY 2), H315 SERIOUS EYE DAMAGE (CATEGORY 1), H318 RESPIRATORY SENSITISATION (CATEGORY 1), H334

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)			
H301	TOXIC IF SWALLOWED.		
H312	HARMFUL IN CONTACT WITH SKIN.		
H315	CAUSES SKIN IRRITATION.		
H318	CAUSES SERIOUS EYE DAMAGE.		
H330	FATAL IF INHALED.		
H334	MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR		
	BREATHING DIFFICULTIES IF INHALED.		
PRECAUTIONARY STA	TEMENT(S)		
P260	DO NOT BREATHE DUST/ FUME/ GAS/ MIST/ VAPOURS/		
	SPRAY.		
P264	WASH SKIN THOROUGHLY AFTER HANDLING.		
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS		
	PRODUCT.		
P271	USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.		
P280	WEAR EYE PROTECTION/ FACE PROTECTION.		
P280	WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING.		
P284	WEAR RESPIRATORY PROTECTION.		
P301 + P310 + P330	IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR		
	DOCTOR/ PHYSICIAN. RINSE MOUTH.		
P302 + P352	IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER		
P302 + P352 + P312	IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.		
	CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU		
	FEEL UNWELL.		
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 +	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 OR DOCTOR/ PHYSICIAN.		
P332 + P313	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/		
	ATTENTION.		
P342 + P311	IF EXPERIENCING RESPIRATORY SYMPTOMS: CALL A		
	POISON CENTER OR DOCTOR/ PHYSICIAN.		
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE		
	REUSE.		
P403 + P233	STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER		
	TIGHTLY CLOSED.		

## P405STORE LOCKED UP.P501DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED<br/>WASTE DISPOSAL PLANT.

HAZARDS NOT NONE OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

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

MF:	$OsO_4$
MW:	254.23

CAS-NO. 20816-12-0

PURITY:

 $\geq$  99.95% (Metal purity)

COMPONENT	CLASSIFICATION	CONCENTRATION
Osmium tetroxide solution	on, 4 wt. % in H2O	
	ACUTE TOX. 2; ACUTE TOX. 1;	>= 1 - < 5 %
	SKIN CORR. 1B; EYE DAM. 1;	
	H300, H330, H310, H314, H318	

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	WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.
IN CASE OF EYE CONTACT	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A

PHYSICIAN.CONTINUE RINSING EYES DURING TRANSPORT TO HOSPITAL.

IF SWALLOWED	NEVER GIVE ANYTHING BY MOUTH TO AN
	UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER.
	CONSULT A PHYSICIAN.
MOST IMPORTANT	THE MOST IMPORTANT KNOWN SYMPTOMS AND
SYMPTOMS AND	EFFECTS ARE DESCRIBED IN THE LABELLING (SEE
EFFECTS, BOTH ACUTE	SECTION 2.2) AND/OR IN SECTION 11
AND DELAYED	
INDICATION OF ANY	NO DATA AVAILABLE
IMMEDIATE MEDICAL	
ATTENTION AND	
SPECIAL TREATMENT	

#### SECTION 5. FIRE AND EXPLOSION DATA

#### **EXTINGUISHING MEDIA**

NEEDED

SUITABLE EXTINGUISHING MEDIA	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.
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	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE
PRECAUTIONS	TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

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 HANDLING	AVOID CONTACT WITH SKIN AND EYES. AVOID 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.
	Store at 0-8 °C
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	
Osmium tetroxide	20816-12-0	TWA	0.0002 PPM	USA. NIOSH
solution, 4 wt. % in H2O			0.002 MG/M3	RECOMMENDED
				EXPOSURE LIMITS
		ST	0.0006 PPM	USA. NIOSH
			0.006 MG/M3	RECOMMENDED
				EXPOSURE LIMITS
		TWA	0.002 MG/M3	USA. OCCUPATIONAL
				EXPOSURE LIMITS
				(OSHA) - TABLE Z-1
				LIMITS FOR AIR
				CONTAMINANTS
		PEL	0.0002 PPM	CALIFORNIA
			0.002 MG/M3	PERMISSIBLE
				EXPOSURE LIMITS FOR
				CHEMICAL
				CONTAMINANTS

STEL	0.0006 PPM 0.006 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
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#### **EXPOSURE CONTROLS**

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

#### 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 PROTECTIONHANDLE WITH GLOVES. GLOVES MUST BE INSPECTED<br/>PRIOR TO USE. USE PROPER GLOVE REMOVAL<br/>TECHNIQUE (WITHOUT TOUCHING GLOVE''S OUTER<br/>SURFACE) TO AVOID SKIN CONTACT WITH THIS<br/>PRODUCT. DISPOSE OF CONTAMINATED GLOVES<br/>AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS<br/>AND GOOD LABORATORY PRACTICES. WASH AND DRY<br/>HANDS.

FULL CONTACT MATERIAL: NATURE LATEX/CHLOROPRENE MINIMUM LAYER THICKNESS: 0.6 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED:LAPREN (KCL 706, SIZE M)

SPLASH CONTACT MATERIAL: NATURE LATEX/CHLOROPRENE MINIMUM LAYER THICKNESS: 0.6 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED:LAPREN (KCL 706, 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.

<b>BODY PROTECTION</b>	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.

RESPIRATORYWHERE RISK ASSESSMENT SHOWS AIR-PURIFYING<br/>RESPIRATORS ARE APPROPRIATE USE A FULLFACE<br/>RESPIRATOR WITH MULTI-PURPOSE COMBINATION<br/>(US) OR TYPE ABEK (EN 14387) RESPIRATOR<br/>CARTRIDGES AS A BACKUP TO ENGINEERING<br/>CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS<br/>OF PROTECTION, USE A FULL-FACE SUPPLIED AIR<br/>RESPIRATOR. USE RESPIRATORS AND COMPONENTS<br/>TESTED AND APPROVED UNDER APPROPRIATE<br/>GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR<br/>CEN (EU).

CONTROL OFPREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TOENVIRONMENTALDO SO. DO NOT LET PRODUCT ENTER DRAINS.EXPOSUREDO SO. DO NOT LET PRODUCT ENTER DRAINS.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Colorless to pale yellow solution
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
РН	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	84.781 HPA AT 20 C
	244.693 HPA AT 55 C
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	NO DATA AVAILABLE
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

<b>OTHER SAFETY</b>	NO DATA AVAILABLE
INFORMATION	

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 MATERIALS	POWDERED METALS, ORGANIC MATERIALS, STRONG REDUCING AGENTS, CONTACT WITH HYDROCHLORIC ACID WILL CAUSE FORMATION OF POISONOUS CHLORINE GAS
HAZARDOUS DECOMPOSITION PRODUCTS	HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN. OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE IN THE EVENT OF FIRE: SEE SECTION 5

#### SECTION 11. TOXICOLOGICAL INFORMATION

#### **INFORMATION ON TOXICOLOGICAL EFFECTS**

ACUTE TOXICITY NO DATA AVAILABLE

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

SKIN NO DATA AVAILABLE

**CORROSION/IRRITATION** 

SERIOUS EYE DAMAGE/EYE IRRITATION	NO DATA AVAILABLE
RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	NO DATA AVAILABLE
CARCINOGENICITY IARC:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED
NTP:	HUMAN CARCINOGEN BY IARC. NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED
OSHA:	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.
REPRODUCTIVE TOXICITY	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	NO DATA AVAILABLE
ASPIRATION HAZARD	NO DATA AVAILABLE
ADDITIONAL INFORMATION	RTECS: NOT AVAILABLE
	TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED., MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN, SPASM, INFLAMMATION AND EDEMA OF THE LARYNX, SPASM, INFLAMMATION AND EDEMA OF THE BRONCHI, PNEUMONITIS, PULMONARY EDEMA, BURNING SENSATION, COUGH, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE
	STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

#### SECTION 12. ECOLOGICAL INFORMATION

ΤΟΧΙCITY	NO DATA AVAILABLE
PERSISTENCE AND DEGRADABILITY	NO DATA AVAILABLE
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	NO DATA AVAILABLE

#### SECTION 13. DISPOSAL CONSIDERATIONS

#### WASTE TREATMENT METHODS

**PRODUCT**OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS<br/>TO A LICENSED DISPOSAL COMPANY. CONTACT A<br/>LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE<br/>TO DISPOSE OF THIS MATERIAL. DISSOLVE OR MIX THE<br/>MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN<br/>IN A CHEMICAL INCINERATOR EQUIPPED WITH AN<br/>AFTERBURNER AND SCRUBBER.

CONTAMINATEDDISPOSE OF AS UNUSED PRODUCT.PACKAGING

SECTION 14. TRANSPORT INFORMATION

DOT (US)	
PROPER SHIPPING NAME:	TOXIC LIQUID, INORGANIC, N.O.S. (OSMIC ACID)
UN NUMBER:	3287
CLASS:	6.1
PACKING GROUP:	II
REPORTABLE QUANTITY	
(RQ):	
POISON INHALATION	NO
HAZARD:	

IMDG	
PROPER SHIPPING NAME:	TOXIC LIQUID, INORGANIC, N.O.S. (OSMIC ACID)
UN NUMBER:	3287
CLASS:	6.1
PACKING GROUP:	II
EMS-NO:	F-A, S-A
IATA	
IATA PROPER SHIPPING NAME:	TOXIC LIQUID, INORGANIC, N.O.S. (OSMIC ACID)
	TOXIC LIQUID, INORGANIC, N.O.S. (OSMIC ACID) 3287
PROPER SHIPPING NAME:	
PROPER SHIPPING NAME: UN NUMBER:	3287

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#### 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	THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313: CAS-NO. REVISION DATE	
Osmium tetroxide solution, 4 wt. % in H2O	20816-12-0	02-08-2013
SARA 311/312 HAZARDS	ACUTE HEALTH HAZARD,	CHRONIC HEALTH HAZARD
MASSACHUSETTS RIGHT		
	CAS-NO.	REVISION DATE
Osmium tetroxide solution, 4 wt. % in H2O	20816-12-0	02-08-2013
PENNSYLVANIA RIGHT TO	<b>) KNOW COMPONENTS</b>	
	CAS-NO.	<b>REVISION DATE</b>
WATER	7732-18-5	
	CAS-NO.	<b>REVISION DATE</b>
Osmium tetroxide solution, 4 wt. % in H2O	20816-12-0	02-08-2013
NEW JERSEY RIGHT TO K	NOW COMPONENTS	
	CAS-NO.	REVISION DATE
WATER	7732-18-5	
	CAS-NO.	<b>REVISION DATE</b>
Osmium tetroxide solution, 4 wt. % in H2O	20816-12-0	02-08-2013

# CALIFORNIA PROP. 65THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALSCOMPONENTSKNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER,<br/>BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE<br/>HARM.

#### SECTION 16. OTHER INFORMATION

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

H301	TOXIC IF SWALLOWED.
H312	HARMFUL IN CONTACT WITH SKIN.
H315	CAUSES SKIN IRRITATION.
H318	CAUSES SERIOUS EYE DAMAGE.
H330	FATAL IF INHALED.
H334	MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR
	BREATHING DIFFICULTIES IF INHALED.

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	

#### 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*