Chem-Impex International Inc.

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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	35256
NAME:	Zinc bromide
SYNONYMS:	
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA)
I ELEFITONE.	352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER	(630) 766-2112
SERVICE:	

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 CORROSION (CATEGORY 1B), H314 SERIOUS EYE DAMAGE (CATEGORY 1), H318 SKIN SENSITISATION (CATEGORY 1), H317 ACUTE AQUATIC TOXICITY (CATEGORY 2), H401

CHRONIC AQUATIC TOXICITY (CATEGORY 2), H411

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)	
H302	HARMFUL IF SWALLOWED.
H314	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H317	MAY CAUSE AN ALLERGIC SKIN REACTION.
H318	CAUSES SERIOUS EYE DAMAGE.
H411	TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
11411	TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
PRECAUTIONARY STATEME	NT(S)
P260	DO NOT BREATHE DUST OR MIST.
P264	WASH SKIN THOROUGHLY AFTER HANDLING.
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS
	PRODUCT.
P272	CONTAMINATED WORK CLOTHING SHOULD NOT BE
	ALLOWED OUT OF THE WORKPLACE.
P273	AVOID RELEASE TO THE ENVIRONMENT.
P280	WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/
	EYE PROTECTION/ FACE PROTECTION.
P301 + P312 + P330	IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/
	PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.
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.
P333 + P313	IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL
	ADVICE/ ATTENTION.
P363	WASH CONTAMINATED CLOTHING BEFORE REUSE.
P391	COLLECT SPILLAGE.
P405	STORE LOCKED UP.
P501	DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED
	WASTE DISPOSAL PLANT.
HAZARDS NOT	NONE
OTHERWISE CLASSIFIED	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: Zi	nBr ₂
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MW: 225.19

CAS-NO. 7699-45-8

PURITY: \geq 99.995% (metals basis)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Zinc bromide		
	ACUTE TOX. 4; SKIN CORR.	<= 100 %
	1B; EYE DAM. 1; SKIN SENS. 1;	
	AQUATIC ACUTE 2; AQUATIC	
	CHRONIC 2; H302, H314, H317,	
	H318, H411	
FOR THE FULL TEXT	OF THE H-STATEMENTS MENTION	NED IN THIS SECTION, SEE

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SE 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 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	DO NOT INDUCE VOMITING. 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 NEEDED

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
SPECIAL HAZARDS	HYDROGEN BROMIDE GAS, ZINC/ZINC OXIDES
ARISING FROM THE SUBSTANCE OR MIXTURE	
ADVICE FOR	WEAR SELF-CONTAINED BREATHING APPARATUS FOR
FIREFIGHTERS	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. EVACUATE PERSONNEL TO SAFE AREAS. 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	FURTHER PROCESSING OF SOLID MATERIALS MAY
HANDLING	RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS.
	THE POTENTIAL FOR COMBUSTIBLE DUST
	FORMATION SHOULD BE TAKEN INTO CONSIDERATION
	BEFORE ADDITIONAL PROCESSING OCCURS.AVOID
	CONTACT WITH SKIN AND EYES. AVOID FORMATION
	OF DUST AND AEROSOLS.
	PROVIDE APPROPRIATE EXHAUST VENTILATION AT
	PLACES WHERE DUST IS FORMED.
	FOR PRECAUTIONS SEE SECTION 2.2.
CONDITIONS FOR SAFE	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND
STORAGE, INCLUDING	WELL-VENTILATED PLACE.
ANY INCOMPATIBILITIES	
	MOISTURE SENSITIVE.
	Store at RT
SDECIEIC END LISE(S)	ADADT EDOM THE HEEC MENTIONED IN CECTION 1.2
SPECIFIC END USE(S)	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED
	NU UTHER SPECIFIC USES ARE STIPULATED

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH	CONTAINS NO SUBSTANCES WITH OCCUPATIONAL
WORKPLACE CONTROL	EXPOSURE LIMIT VALUES.
PARAMETERS	

EXPOSURE CONTROLS

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

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTIONFACE SHIELD AND SAFETY GLASSES 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 PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) 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. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES			
APPEARANCE	White to off-white crystalline powder		
ODOUR	NO DATA AVAILABLE		
ODOUR THRESHOLD	NO DATA AVAILABLE		
PH	NO DATA AVAILABLE		
MELTING	394 °C		
POINT/FREEZING POINT			
BOILING POINT	650 °C		
FLASH POINT			
EVAPOURATION RATE	NO DATA AVAILABLE		
FLAMMABILITY (SOLID,	NO DATA AVAILABLE		
GAS)			
UPPER/LOWER	NO DATA AVAILABLE		
FLAMMABILITY OR			
EXPLOSIVE LIMITS			
VAPOUR PRESSURE	NO DATA AVAILABLE		
VAPOUR DENSITY	NO DATA AVAILABLE		
RELATIVE DENSITY	4.20		
WATER SOLUBILITY	4,470 G/L AT 20 C - COMPLETELY 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

BULK DENSITY 1.5 G/L

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	EXPOSURE TO MOISTURE MAY AFFECT PRODUCT QUALITY.

INCOMPATIBLE MATERIALS	FORMS SHOCK-SENSITIVE MIXTURES WITH CERTAIN OTHER MATERIALS., SODIUM/SODIUM OXIDES, POTASSIUM
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	LD50 ORAL - RAT - 1,447 MG/KG	
	INHALATION: NO DATA AVAILABLE	
	LD50 DERMAL - RABBIT - > 2,000 MG/KG	
	NO DATA AVAILABLE	
SKIN CORROSION/IRRITATION	SKIN RABBIT RESULT: CORROSIVE	
SERIOUS EYE DAMAGE/EYE IRRITATION	EYES RABBIT RESULT: SEVERE EYE IRRITATION	
RESPIRATORY OR SKIN SENSITISATION	MAXIMISATION TEST (GPMT) - GUINEA PIG MAY CAUSE SENSITISATION BY SKIN CONTACT.	
GERM CELL MUTAGENICITY	RAT ASCITES TUMOR CYTOGENETIC ANALYSIS	
CARCINOGENICITY		
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.
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: ZH1150000 COUGH, SHORTNESS OF BREATH, HEADACHE, NAUSEA, VOMITING

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH	SEMI-STATIC TEST LC50 - OTHER FISH - 115.9 MG/L - 96 H		
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	IMMOBILIZATION EC50 - DAPHNIA MAGNA (WATER FLEA) - 8.8 MG/L - 48 H		
TOXICITY TO ALGAE	GROWTH INHIBITION EC50 - SKELETONEMA COSTATUM - 6.6 MG/L - 72 H		
PERSISTENCE AND DEGRADABILITY			
BIODEGRADABILITY	RESULT: - ACCORDING TO THE RESULTS OF TESTS OF		
	BIODEGRADABILITY THIS PRODUCT IS NOT READILY BIODEGRADABLE.		
BIOACCUMULATIVE POTENTIAL			
	BIODEGRADABLE.		

RESULTS OF PBT AND VPVBPBT/VPVB ASSESSMENT NOT AVAILABLE ASASSESSMENTCHEMICAL 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 WITH LONG LASTING EFFECTS.

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:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Zinc bromide)
UN NUMBER:	3260
CLASS:	8
PACKING GROUP:	III
REPORTABLE QUANTITY	1000 LBS
(RQ): MARINE POLLUTANT:	YES
POISON INHALATION HAZARD:	NO
IMDG	
PROPER SHIPPING NAME:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Zinc bromide)
UN NUMBER:	3260
CLASS:	8
PACKING GROUP:	III
EMS-NO:	F-A, S-B
IATA	
PROPER SHIPPING NAME:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Zinc bromide)
UN NUMBER:	3260
CLASS:	8
PACKING GROUP:	III

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	NO CHEMICALS IN THIS M THE REPORTING REQUIRE SECTION 302.		
SARA 313 COMPONENTS	THE FOLLOWING COMPON REPORTING LEVELS ESTAI SECTION 313:	IENTS ARE SUBJECT TO BLISHED BY SARA TITLE III,	
	CAS #	REVISION DATE	
Zinc bromide	7699-45-8	4/24/1993	
SARA 311/312 HAZARDS	ACUTE HEALTH HAZARD		
MASSACHUSETTS RIGHT TO	O KNOW COMPONENTS		
	CAS #	REVISION DATE	
Zinc bromide	7699-45-8	4/24/1993	
PENNSYLVANIA RIGHT TO KNOW COMPONENTS			
	CAS #	REVISION DATE	
Zinc bromide	7699-45-8	4/24/1993	
NEW JERSEY RIGHT TO KNOW COMPONENTS			
	CAS #	REVISION DATE	
Zinc bromide	7699-45-8	4/24/1993	
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-STAT	EMENTS REFERRED TO UNDER SECTIONS 2 AND 3.
ACUTE TOX.	ACUTE TOXICITY
AQUATIC ACUTE	ACUTE AQUATIC TOXICITY
AQUATIC CHRONIC	CHRONIC AQUATIC TOXICITY
EYE DAM.	SERIOUS EYE DAMAGE
H302	HARMFUL IF SWALLOWED.
H314	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H317	MAY CAUSE AN ALLERGIC SKIN REACTION.
H318	CAUSES SERIOUS EYE DAMAGE.
H401	TOXIC TO AQUATIC LIFE.
H411	TOXIC TO AQUATIC LIFE WITH LONG LASTING
	EFFECTS.
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)
IN (DODTANT	

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