# Chem-Impex International Inc.

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# SAFETY DATA SHEET

#### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 35741

NAME: Potassium hydroxide anhydrous

SYNONYMS: Caustic potash

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 ACUTE TOXICITY, ORAL (CATEGORY 4), H302 SKIN CORROSION (CATEGORY 1A), H314 SERIOUS EYE DAMAGE (CATEGORY 1), H318 SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 3), H402

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. H302 HARMFUL IF SWALLOWED.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H402 HARMFUL TO AQUATIC LIFE.

# PRECAUTIONARY STATEMENT(S)

P234 KEEP ONLY IN ORIGINAL CONTAINER.
 P260 DO NOT BREATHE DUST OR MIST.
 P264 WASH SKIN THOROUGHLY AFTER HANDLING.

P270 WASH SKIN THOROUGHLY AFTER HANDLING.
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS

PRODUCT.

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/DOCTOR 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): TAKE OFF IMMEDIATELY ALL

CONTAMINATED CLOTHING. RINSE SKIN WITH

WATER/SHOWER.

P304 + P340 + P310 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP

COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A

POISON CENTER/DOCTOR.

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/DOCTOR.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.
P390 ABSORB SPILLAGE TO PREVENT MATERIAL DAMAGE.

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: **KOH** 

MW: 56.10

CAS-NO. 1310-58-3

**PURITY**:  $\geq$  99% (Trace metal basis)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION			
Potassium hydroxide anhydrous					
	MET. CORR. 1; ACUTE TOX. 4;	<= 100 %			
	SKIN CORR. 1A; EYE DAM. 1;				
	AQUATIC ACUTE 3; H290,				
	H302, H314, H318, H402				
	CONCENTRATION LIMITS: >=				
	1 %: MET. CORR. 1, H290				

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.

TAKE OFF CONTAMINATED CLOTHING AND SHOES

CONSULT A PHYSICIAN.

IN CASE OF SKIN

**CONTACT** 

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 EFFECTS, BOTH ACUTE AND DELAYED THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE 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 USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY

**EXTINGUISHING MEDIA** CHEMICAL OR CARBON DIOXIDE.

SPECIAL HAZARDS ARISING FROM THE POTASSIUM OXIDES

SUBSTANCE OR MIXTURE

**ADVICE FOR** WEAR SELF-CONTAINED BREATHING APPARATUS FOR

**FIREFIGHTERS** FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION** GIVES OFF HYDROGEN BY REACTION WITH METALS.

# SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL
PRECAUTIONS,
PROTECTIVE
EQUIPMENT AND
EMERGENCY
PROCEDURES

WEAR RESPIRATORY PROTECTION. 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.

# 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

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND

WELL-VENTILATED PLACE.

ANY INCOMPATIBILITIES ABSORBS CARBON DIOXIDE (CO2) FROM AIR.

AIR SENSITIVE. STRONGLY HYGROSCOPIC

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 PARAMETER	BASIS
Potassium	1310-58-3	С	2 MG/M3	USA. ACGIH
hydroxide anhydrous				THRESHOLD LIMIT VALUES (TLV)
	REMARKS	UPPER RE	SPIRATORY TRA	CT IRRITATION
		EYE IRRIT SKIN IRRI	- '	
		С	2 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

(	C	2 MG/M3	CALIFORNIA
			PERMISSIBLE
			EXPOSURE LIMITS
			FOR CHEMICAL
			CONTAMINANTS

# **DERIVED NO EFFECT LEVEL (DNEL)**

APPLICATION AREA	EXPOSURE	HEALTH EFFECT	VALUE
	ROUTES		
WORKERS	INHALATION	LONG-TERM LOCAL	1 MG/M3
		EFFECTS	
CONSUMERS	INHALATION	LONG-TERM LOCAL	1 MG/M3
		EFFECTS	

# **EXPOSURE CONTROLS**

APPROPRIATEHANDLE IN ACCORDANCE WITH GOOD INDUSTRIALENGINEERINGHYGIENE AND SAFETY PRACTICE. WASH HANDSCONTROLSBEFORE BREAKS AND AT THE END OF WORKDAY.

# PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION FACE 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 DEPMATERIA (V.C. 740 SIZI

 $MATERIAL\ TESTED: DERMATRIL\ (KCL\ 740,\ SIZE\ M)$ 

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 FULLFACE 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 pellets ODOUR ODOURLESS

ODOUR THRESHOLD NO DATA AVAILABLE PH CA.13.5 AT 5.6 G/L AT 25 C

MELTING

POINT/FREEZING POINT INITIAL BOILING POINT AND BOILING RANGE

FLASH POINT

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, DOES NOT IGNITE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE 1 HPA AT 719 C

VAPOUR DENSITY NO DATA AVAILABLE

RELATIVE DENSITY

WATER SOLUBILITY 1,130 G/L AT 20 C

PARTITION COEFFICIENT: NOT APPLICABLE FOR INORGANIC SUBSTANCES

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 1,300 KG/M3

#### SECTION 10. STABILITY AND REACTIVITY

**REACTIVITY** NO DATA AVAILABLE

CHEMICAL STABILITY HEAT OF SOLUTION IS VERY HIGH, AND WITH LIMITED

AMOUNTS OF WATER, VIOLENT BOILING MAY OCCUR

STABLE UNDER RECOMMENDED STORAGE

CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS

NO DATA AVAILABLE

**CONDITIONS TO AVOID** DO NOT HEAT ABOVE MELTING POINT.

INCOMPATIBLE NITRO COMPOUNDS, ORGANIC MATERIALS, MATERIALS MAGNESIUM, COPPER, WATER, AND REACTS

VIOLENTLY WITH: METALS, LIGHT METALS, CONTACT

WITH ALUMINUM, TIN AND ZINC LIBERATES

HYDROGEN GAS. CONTACT WITH N FORMATION OF SHOCK-SENSITIVE SALTS. VIGOROUS REACTION WITH: ALKALI METALS, HALOGENS, AZIDES, ANHYDRIDES,

STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION OTHER DECOMPOSITION PRODUCTS - NO DATA

**AVAILABLE** 

PRODUCTS HAZARDOUS DECOMPOSITION PRODUCTS FORMED

UNDER FIRE CONDITIONS. - POTASSIUM OXIDES

IN THE EVENT OF FIRE: SEE SECTION 5

#### SECTION 11. TOXICOLOGICAL INFORMATION

# INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - RAT - MALE - 333 MG/KG

(OECD TEST GUIDELINE 425)

INHALATION: CORROSIVE TO RESPIRATORY SYSTEM.

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

SKIN SKIN RABBIT

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

REMARKS: (IUCLID)

SERIOUS EYE EYES RABBIT

**DAMAGE/EYE IRRITATION** RESULT: CAUSES SERIOUS EYE DAMAGE.

(OECD TEST GUIDELINE 405) CAUSES SERIOUS EYE DAMAGE.

RESPIRATORY OR SKIN

SENSITISATION TEST: - GUINEA PIG

SENSITISATION

RESULT: NEGATIVE REMARKS: (IUCLID)

**GERM CELL** AMES TEST

MUTAGENICITY S. TYPHIMURIUM RESULT: NEGATIVE

(ECHA)

IN VITRO MAMMALIAN CELL GENE MUTATION TEST

MOUSE LYMPHOMA CELLS

**RESULT: NEGATIVE** 

**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.

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 - IF INGESTED, SEVERE BURNS OF THE MOUTH AND THROAT, AS WELL AS A DANGER OF PERFORATION OF THE OESOPHAGUS

AND THE STOMACH.

ACUTE INHALATION TOXICITY - BURNS OF MUCOUS MEMBRANES, COUGH, SHORTNESS OF BREATH, POSSIBLE DAMAGES: DAMAGE OF RESPIRATORY

**TRACT** 

**SPECIFIC TARGET ORGAN** 

TOXICITY - REPEATED

**EXPOSURE** 

NO DATA AVAILABLE

**ASPIRATION HAZARD** NO DATA AVAILABLE

ADDITIONAL INFORMATION

RTECS: TT2100000

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE

NOT BEEN THOROUGHLY INVESTIGATED.

# **SECTION 12. ECOLOGICAL INFORMATION**

**TOXICITY** 

TOXICITY TO FISH LC50 - GAMBUSIA AFFINIS (MOSQUITO FISH) - 80

MG/L - 96 H

REMARKS: (IUCLID)

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** 

PBT/VPVB ASSESSMENT NOT AVAILABLE AS

VPVB ASSESSMENT CHEMICAL SAFETY ASSESSMENT NOT

REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS

AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL

HANDLING OR DISPOSAL.

HARMFUL TO AQUATIC LIFE.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### WASTE TREATMENT METHODS

**PRODUCT** 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. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY.

**CONTAMINATED PACKAGING** 

DISPOSE OF AS UNUSED PRODUCT.

#### SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: POTASSIUM HYDROXIDE, SOLID

UN NUMBER: 1813 CLASS: 8 PACKING GROUP: II

REPORTABLE QUANTITY 1000 LBS

(RQ):

POISON INHALATION

NO

HAZARD:

**IMDG** 

POTASSIUM HYDROXIDE, SOLID PROPER SHIPPING NAME:

UN NUMBER: 1813 CLASS: 8 PACKING GROUP: II

F-A, S-B EMS-NO:

**IATA** 

PROPER SHIPPING NAME: POTASSIUM HYDROXIDE, SOLID

UN NUMBER: 181 CLASS: 8 PACKING GROUP: II

# 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 (DE MINIMIS) 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

Potassium hydroxide anhydrous 1310-58-3 08/11/1989

#### SECTION 16. OTHER INFORMATION

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

H290 MAY BE CORROSIVE TO METALS. H302 HARMFUL IF SWALLOWED.

narwiful if Swallowed.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H402 HARMFUL TO AQUATIC LIFE.

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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