# **Chem-Impex International Inc.**

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# SAFETY DATA SHEET

### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	36364
NAME:	Isobutyric acid
SYNONYMS:	2-Methylpropionic acid
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) FLAMMABLE LIQUIDS (CATEGORY 3), H226 ACUTE TOXICITY, ORAL (CATEGORY 4), H302 ACUTE TOXICITY, DERMAL (CATEGORY 3), H311 SKIN CORROSION (CATEGORY 1B), 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

P501



SIGNAL WORD

HAZARD STATEMENT(S)

$\mathbf{HALARD} \ \mathbf{SIAI} = \mathbf{MENI(S)}$			
H226	FLAMMABLE LIQUID AND VAPOUR.		
H302	HARMFUL IF SWALLOWED		
H311	TOXIC IN CONTACT WITH SKIN.		
H314	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE		
H402	HARMFUL TO AQUATIC LIFE.		
PRECAUTIONARY STAT			
P210	KEEP AWAY FROM HEAT, HOT SURFACES, SPARKS, OPEN		
	FLAMES AND OTHER IGNITION SOURCES. NO SMOKING.		
P233	KEEP CONTAINER TIGHTLY CLOSED		
P240	GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.		
P241	USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/		
	LIGHTING/ EQUIPMENT.		
P242	USE ONLY NON-SPARKING TOOLS		
P243	TAKE ACTION TO PREVENT STATIC DISCHARGES.		
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 PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE		
	PROTECTION/ FACE PROTECTION.		
P301 + P312 + P330	IF SWALLOWED: CALL A POISON CENTER/DOCTOR IF YOU		
	FFFI INWELL DINGE MOUTH		

	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.
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
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE
	REUSE.
P370 + P378	IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR
	ALCOHOL-RESISTANT FOAM TO EXTINGUISH
P403 + P235	STORE IN A WELL-VENTILATED PLACE. KEEP COOL.
P405	STORE LOCKED UP.

WASTE DISPOSAL PLANT.

DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

# SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:	$C_4H_8O_2$
MW:	88.11
CAS-NO.	79-31-2
	> 000/ (1

PURITY:  $\geq$  99% (Assay by titration)

#### HAZARDOUS COMPONENTS

CLASSIFICATION	CONCENTRATION
FLAM. LIQ. 3; ACUTE TOX	
ACUTE TOX. 3; SKIN CORI	R. 1B;
EYE DAM. 1; AQUATIC AC	UTE
3; H226, H302, H311, H314,	H402
	FLAM. LIQ. 3; ACUTE TOX ACUTE TOX. 3; SKIN COR EYE DAM. 1; AQUATIC AC

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	TAKE OFF CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. 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	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 SUBSTANCE OR MIXTURE	CARBON OXIDES
ADVICE FOR	WEAR SELF-CONTAINED BREATHING APPARATUS FOR
FIREFIGHTERS	FIREFIGHTING IF NECESSARY.
FURTHER INFORMATION	USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

# SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	WEAR RESPIRATORY PROTECTION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW 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.

DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

METHODS ANDCONTAIN SPILLAGE, AND THEN COLLECT WITH ANMATERIALS FORELECTRICALLY PROTECTED VACUUM CLEANER OR BYCONTAINMENT ANDWET-BRUSHING AND PLACE IN CONTAINER FORCLEANING UPDISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE<br/>SECTION 13).

**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. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. 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.
	STENCH
	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** CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES. HAZARDOUS COMPONENTS WITHOUT WORKPLACE CONTROL PARAMETERS

#### **EXPOSURE CONTROLS**

APPROPRIATEAVOID CONTACT WITH SKIN, EYES AND CLOTHING.ENGINEERING CONTROLSWASH HANDS BEFORE BREAKS AND IMMEDIATELY<br/>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 MINIMUM LAYER THICKNESS: 0.6 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED:LAPREN (KCL 706, SIZE M)

SPLASH CONTACT MATERIAL: NITRILE RUBBER MINIMUM LAYER THICKNESS: 0.11 MM BREAK THROUGH TIME: 30 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 PROTECTIONCOMPLETE SUIT PROTECTING AGAINST CHEMICALS,<br/>FLAME RETARDANT ANTISTATIC PROTECTIVE<br/>CLOTHING. THE TYPE OF PROTECTIVE EQUIPMENT<br/>MUST BE SELECTED ACCORDING TO THE<br/>CONCENTRATION AND AMOUNT OF THE DANGEROUS<br/>SUBSTANCE AT THE SPECIFIC WORKPLACE.

<b>RESPIRATORY</b> <b>PROTECTION</b>	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. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

# SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES			
APPEARANCE	Colorless liquid		
ODOUR	STENCH		
ODOUR THRESHOLD	NO DATA AVAILABLE		
PH	2.3 AT 500 G/L AT 25 C (77 F)		
MELTING	-47 °C		
POINT/FREEZING POINT			
INITIAL BOILING POINT	153 - 154 °C		
AND BOILING RANGE			
FLASH POINT	55 °C		
EVAPORATION RATE	NO DATA AVAILABLE		
FLAMMABILITY (SOLID,	NO DATA AVAILABLE		
GAS)			
UPPER/LOWER	UPPER EXPLOSION LIMIT: 10 %(V)		
FLAMMABILITY OR	LOWER EXPLOSION LIMIT: 2 %(V)		
EXPLOSIVE LIMITS			
VAPOUR PRESSURE	2.0 HPA AT 20 C (68 F)		
VAPOUR DENSITY	3.04 - (AIR = 1.0)		
RELATIVE DENSITY	0.95		
WATER SOLUBILITY	618 G/L AT 20 C (68 F) - OECD TEST GUIDELINE 105 -		
	SOLUBLE		
PARTITION COEFFICIENT:	LOG POW: 1.1 AT 25 C (77 F)		
N- OCTANOL/WATER			
AUTO-IGNITION	455 C (851 F) AT 1,018 HPA		
TEMPERATURE			
DECOMPOSITION	NO DATA AVAILABLE		
TEMPERATURE			
VISCOSITY	NO DATA AVAILABLE		
EXPLOSIVE PROPERTIES			
OXIDIZING PROPERTIES	NO DATA AVAILABLE		

**OTHER SAFETY INFORMATION** SURFACE TENSION RELATIVE VAPOUR DENSITY

70.2 MN/M AT 20 C (68 F) 3.04 - (AIR = 1.0)

#### 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	HEAT, FLAMES AND SPARKS.
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCTS	HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS CARBON OXIDES 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

LD50 DERMAL - RABBIT - MALE - 474 MG/KG (OECD TEST GUIDELINE 402)

NO DATA AVAILABLE

NO DATA AVAILABLE

# SKIN **CORROSION/IRRITATION**

SERIOUS EYE EYES RABBIT DAMAGE/EYE IRRITATION **RESULT: CORROSIVE** 

RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	IN VITRO MAMMALIAN CELL GENE MUTATION TEST CHINESE HAMSTER OVARY CELLS RESULT: NEGATIVE
CARCINOGENICITY IARC: NTP: OSHA:	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. 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. 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: NQ4375000 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., TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED

# SECTION 12. ECOLOGICAL INFORMATION

# TOXICITY

STATIC TEST LC50 - LEUCISCUS IDUS (GOLDEN ORFE) - 146.6 MG/L - 96 H (DIN 38412)
STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 51.25 MG/L - 48 H (DIN 38412)
STATIC TEST EC50 - DESMODESMUS SUBSPICATUS (SCENEDESMUS SUBSPICATUS) - 45.1 MG/L - 72 H
ZAHN-WELLENS TEST - EXPOSURE TIME 10 D RESULT: > 95 % - INHERENTLY BIODEGRADABLE. (OECD TEST GUIDELINE 302B)
NO DATA AVAILABLE
NO DATA AVAILABLE
PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
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	BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER B HIGHLY FLAMMABLE. OFFER SURPLUS AND NONRECYCLABLE 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: (Isobutyric acid)

UN NUMBER: CLASS: PACKING GROUP: REPORTABLE QUANTITY (RQ) : POISON INHALATION HAZARD:	2529 3 (8) III 5000 LBS NO
IMDG PROPER SHIPPING NAME: UN NUMBER: CLASS: PACKING GROUP: EMS-NO:	(Isobutyric acid) 2529 3 (8) III F-E, S-C
IATA PROPER SHIPPING NAME: UN NUMBER: CLASS: PACKING GROUP:	(Isobutyric acid) 2529 3 (8) III

# SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	NO CHEMICALS IN THIS MA THE REPORTING REQUIREN SECTION 302.	
SARA 313 COMPONENTS	THIS MATERIAL DOES NOT COMPONENTS WITH KNOW EXCEED THE THRESHOLD ( LEVELS ESTABLISHED BY S	N CAS NUMBERS THAT
SARA 311/312 HAZARDS	FIRE HAZARD, ACUTE HEA	LTH HAZARD
MASSACHUSETTS RIGHT T	O KNOW COMPONENTS	
	CAS-NO.	REVISION DATE
Isobutyric acid	79-31-2	04-24-1993
PENNSYLVANIA RIGHT TO	KNOW COMPONENTS	
	CAS-NO.	REVISION DATE
Isobutyric acid	79-31-2	04-24-1993
NEW JERSEY RIGHT TO KNOW COMPONENTS		
	CAS-NO.	REVISION DATE
Isobutyric acid	79-31-2	04-24-1993
CALIFORNIA PROP. 65 COM	<b>IPONENTS</b> ONTAIN ANY CHEMICALS KI	NOWN TO STATE OF

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.

H226	FLAMMABLE LIQUID AND VAPOUR.
H302	HARMFUL IF SWALLOWED.
H311	TOXIC IN CONTACT WITH SKIN.
H314	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H318	CAUSES SERIOUS EYE DAMAGE
H402	HARMFUL TO AQUATIC LIFE.

#### HMIS RATING

HEALTH HAZARD:	3
CHRONIC HEALTH	
HAZARD:	
FLAMMABILITY:	2
PHYSICAL HAZARD	0

### NFPA RATING

HEALTH HAZARD:	2
FIRE HAZARD:	4
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)
IMPORTANT:	

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