Chem-Impex International Inc.

Tel: (630) 766-2112
E-mail: sales@chemimpex.com
Shipping and Correspondence:
935 Dillon Drive
Wood Dale, IL 60191 USA

Fax: (630) 766-2218
Web site: www.chemimpex.com
Manufacturing site:
825 Dillon Drive
Wood Dale, IL 60191 USA

SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 34461

NAME: Isovaleraldehyde

SYNONYMS: 3-Methylbutanal

3-Methylbutyraldehyde

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 2), H225

EYE IRRITATION (CATEGORY 2A), H319 SKIN SENSITISATION (CATEGORY 1), H317 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3),

RESPIRATORY SYSTEM, H335

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)

H225 HIGHLY FLAMMABLE LIQUID AND VAPOUR.
 H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H319 CAUSES SERIOUS EYE IRRITATION
H335 MAY CAUSE RESPIRATORY IRRITATION.

H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

PRECAUTIONARY STATEMENT(S)

P210	KEEP AWAY FROM HEAT/SPARKS/OPEN FLA	

SURFACES, 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 PRECAUTIONARY MEASURES AGAINST STATIC

DISCHARGE

P261 AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/

SPRAY.

P264 WASH SKIN THOROUGHLY AFTER HANDLING.

P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA

P272 CONTAMINATED WORK CLOTHING SHOULD NOT BE

ALLOWED OUT OF THE WORKPLACE.

P273 AVOID RELEASE TO THE ENVIRONMENT.

P280 WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE

PROTECTION.

P303 + P361 + P353 IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY

ALL CONTAMINATED CLOTHING. RINSE SKIN WITH

WATER/SHOWER.

P304 + P340 + P312 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT

REST IN A POSITION COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL

UNWELL.

P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL

MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND

EASY TO DO. CONTINUE RINSING.

P333 + P313 IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL

ADVICE/ ATTENTION.

P337 + P313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/

ATTENTION.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.

P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR

ALCOHOL-RESISTANT FOAM FOR EXTINCTION

P391 COLLECT SPILLAGE.

P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER

TIGHTLY CLOSED

P403 + P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.

P405 STORE LOCKED UP.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED

WASTE DISPOSAL PLANT.

HAZARDS NOT OTHERWISE

CLASSIFIED (HNOC) OR NOT COVERED

BY GHS

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

STENCH

MF: $C_5H_{10}O$

MW: 86.13

CAS-NO. 590-86-3

PURITY: 97 - 100% (GC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Isovaleraldehyde		•
	FLAM. LIQ. 2; EYE IRRIT. 2A; SKIN SENS. 1; STOT SE 3; AQUATIC ACUTE 2; AQUATIC CHRONIC 2; H225, H317, H319, H335, H411	<= 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

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 WASH OFF WITH SOAP AND PLENTY OF WATER.

CONTACT CONSULT A PHYSICIAN.

IN CASE OF EYE RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT

CONTACT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.

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 CARBON OXIDES ARISING FROM THE

SUBSTANCE OR MIXTURE

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

PERSONALUSE PERSONAL PROTECTIVE EQUIPMENT. AVOIDPRECAUTIONS,BREATHING VAPOURS, MIST OR GAS. ENSUREPROTECTIVEADEQUATE VENTILATION. REMOVE ALL SOURCES OF

EQUIPMENT ANDIGNITION. EVACUATE PERSONNEL TO SAFE AREAS.EMERGENCYBEWARE OF VAPOURS ACCUMULATING TO FORMPROCEDURESEXPLOSIVE 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 AND MATERIALS FOR CONTAINMENT AND CLEANING UP CONTAIN SPILLAGE, AND THEN COLLECT WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE

SECTION 13).

REFERENCE TO OTHER SECTIONS

FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

PRECAUTIONS FOR SAFE AVOID CONTACT WITH SKIN AND EYES. AVOID

INHALATION OF VAPOUR OR MIST.

USE EXPLOSION-PROOF EQUIPMENT.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 OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO

PREVENT LEAKAGE.

HANDLE AND STORE UNDER INERT GAS. AIR AND

LIGHT SENSITIVE.

Store at 2 - 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 CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE

LIMIT VALUES.

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

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.

SPLASH CONTACT

MATERIAL: BUTYL-RUBBER

MINIMUM LAYER THICKNESS: 0.3 MM

BREAK THROUGH TIME: 30 MIN

MATERIAL TESTED:BUTOJECT (KCL 897, 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, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING., 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 (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEE 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 Colorless liquid ODOUR UNPLEASANT

ODOUR THRESHOLD NO DATA AVAILABLE NO DATA AVAILABLE

MELTING

POINT/FREEZING POINT

INITIAL BOILING POINT 91 - 93 °C

AND BOILING RANGE

FLASH POINT -1 °C

EVAPORATION RATE NO DATA AVAILABLE FLAMMABILITY (SOLID, NO DATA AVAILABLE

GAS)

UPPER/LOWER NO DATA AVAILABLE

FLAMMABILITY OR EXPLOSIVE LIMITS

VAPOUR PRESSURE 40 HPA AT 20 C (68 F)VAPOUR DENSITY 2.97 - (AIR = 1.0)

RELATIVE DENSITY 0.80

WATER SOLUBILITY 15 G/L AT 20 C (68 F) - OECD TEST GUIDELINE 105 -

SOLUBLE

PARTITION COEFFICIENT: LOG POW: 1.5 AT 25 C (77 F)

N- OCTANOL/WATER

AUTO-IGNITION 210 C (410 F) AT 1,020 HPA

TEMPERATURE

DECOMPOSITION NO DATA AVAILABLE

TEMPERATURE

VISCOSITY 0.69 MM2/S AT 20 C (68 F) EXPLOSIVE PROPERTIES NO DATA AVAILABLE OXIDIZING PROPERTIES NO DATA AVAILABLE

OTHER SAFETY INFORMATION

RELATIVE VAPOUR 2.97 - (AIR = 1.0)

DENSITY

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY NO DATA AVAILABLE

CHEMICAL STABILITY STABLE UNDER RECOMMENDED STORAGE

CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS VAPOURS MAY FORM EXPLOSIVE MIXTURE WITH AIR

CONDITIONS TO AVOID HEAT, FLAMES AND SPARKS.

INCOMPATIBLE OXIDIZING AGENTS, STRONG BASES, STRONG

MATERIALS REDUCING 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 LD50 ORAL - RAT - 5,600 MG/KG

REMARKS: BEHAVIORAL: SOMNOLENCE (GENERAL

DEPRESSED ACTIVITY).

LD50 ORAL - RAT - 5,740 MG/KG (OECD TEST GUIDELINE 401)

LC50 INHALATION - RAT - 4 H - 42,700 MG/M3 REMARKS: BEHAVIORAL:ALTERED SLEEP TIME (INCLUDING CHANGE IN RIGHTING REFLEX). GASTROINTESTINAL:CHANGES IN STRUCTURE OR

FUNCTION OF SALIVARY GLANDS.

LD50 DERMAL - RABBIT - 2,534 MG/KG

REMARKS: LIVER:OTHER CHANGES. PROLONGED SKIN CONTACT MAY CAUSE SKIN IRRITATION AND/OR

DERMATITIS.

NO DATA AVAILABLE

SKIN SKIN - RABBIT

CORROSION/IRRITATION RESULT: MILD SKIN IRRITATION

SERIOUS EYE EYES - RABBIT

DAMAGE/EYE IRRITATION RESULT: IRRITATING TO EYES.

RESPIRATORY OR SKIN

SENSITISATION

THE PRECEDING DATA, OR INTERPRETATION OF DATA, WAS DETERMINED USING QUANTITATIVE STRUCTURE

ACTIVITY RELATIONSHIP (QSAR) MODELING.

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

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.

NO COMPONENT OF THIS PRODUCT PRESENT AT OSHA:

> 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

INHALATION - MAY CAUSE RESPIRATORY IRRITATION.

- RESPIRATORY SYSTEM

SPECIFIC TARGET ORGAN TOXICITY - REPEATED

EXPOSURE

NO DATA AVAILABLE

ASPIRATION HAZARD NO DATA AVAILABLE

ADDITIONAL **INFORMATION** RTECS: ES3450000

NAUSEA, HEADACHE, VOMITING, TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN

EC50 - DAPHNIA MAGNA (WATER FLEA) - 177 MG/L - 48

THOROUGHLY INVESTIGATED.

SECTION 12. **ECOLOGICAL INFORMATION**

TOXICITY

TOXICITY TO FISH LC50 - PIMEPHALES PROMELAS (FATHEAD MINNOW) -

3.25 MG/L - 96 H

TOXICITY TO DAPHNIA AND

OTHER AQUATIC **INVERTEBRATES**

Η

ERC50 - DESMODESMUS SUBSPICATUS TOXICITY TO ALGAE

(SCENEDESMUS SUBSPICATUS) - 113 MG/L - 72 H

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY RESULT: 50 % - NOT READILY BIODEGRADABLE.

(OECD TEST GUIDELINE 301D)

BIOACCUMULATIVE

POTENTIAL

DOES NOT BIOACCUMULATE

MOBILITY IN SOIL NO DATA AVAILABLE

ASSESSMENT

RESULTS OF PBT AND VPVB 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 WITH LONG LASTING

EFFECTS.

NO DATA AVAILABLE

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: ALDEHYDES, N.O.S. (Isovaleraldehyde)

1989 UN NUMBER: CLASS: 3 II PACKING GROUP:

REPORTABLE QUANTITY

(RQ):

POISON INHALATION NO

HAZARD:

IMDG

PROPER SHIPPING NAME: ALDEHYDES, N.O.S. (Isovaleraldehyde)

UN NUMBER: 1989
CLASS: 3
PACKING GROUP: II
EMS-NO: F-E, S-D

IATA

PROPER SHIPPING NAME: ALDEHYDES, N.O.S. (Isovaleraldehyde)

UN NUMBER: 1989 CLASS: 3 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

FIRE HAZARD, ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

Isovaleraldehyde 590-86-3 04-24-1993

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

Isovaleraldehyde 590-86-3 04-24-1993

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. REVISION DATE

Isovaleraldehyde 590-86-3 04-24-1993

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-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H225 HIGHLY FLAMMABLE LIQUID AND VAPOUR. H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H319 CAUSES SERIOUS EYE IRRITATION
H335 MAY CAUSE RESPIRATORY IRRITATION.

H401 TOXIC TO AQUATIC LIFE.

H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING

EFFECTS.

HMIS RATING

HEALTH HAZARD: 2

CHRONIC HEALTH

HAZARD:

FLAMMABILITY: 3 PHYSICAL HAZARD 0

NFPA RATING

HEALTH HAZARD: 2 FIRE HAZARD: 3 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:

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