

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

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## **S A F E T Y   D A T A   S H E E T**

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### **SECTION 1.   CHEMICAL IDENTIFICATION**

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|                                 |                                                         |
|---------------------------------|---------------------------------------------------------|
| CATALOG #:                      | 50098                                                   |
| NAME:                           | Heptane                                                 |
| 24 HOUR EMERGENCY<br>TELEPHONE: | (800) 535-5053(USA)<br><br>352-323-3500 (INTERNATIONAL) |
| TO REQUEST AN MSDS:             | (800) 869-9290                                          |
| CUSTOMER<br>SERVICE:            | (630) 766-2112                                          |

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### **SECTION 2.   HAZARDS IDENTIFICATION**

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#### **CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

##### **GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**

FLAMMABLE LIQUIDS (CATEGORY 2), H225

SKIN IRRITATION (CATEGORY 2), H315

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE, (CATEGORY 3) (CENTRAL NERVOUS SYSTEM) (H336)

ASPIRATION HAZARD (CATEGORY 1), H304

SHORT-TERM (ACUTE) AQUATIC HAZARD, (CATEGORY 1), H400

LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 1), H410

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.                   |
| H304 | MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.         |
| H315 | CAUSES SKIN IRRITATION.                               |
| H336 | MAY CAUSE DROWSINESS OR DIZZINESS.                    |
| H410 | VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. |

**PRECAUTIONARY STATEMENT(S)**

|                    |                                                                                                                             |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| P210               | KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT 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.                                                                             |
| P273               | AVOID RELEASE TO THE ENVIRONMENT.                                                                                           |
| P280               | WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE PROTECTION.                                                                    |
| P301 + P310        | IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/DOCTOR.                                                                      |
| P303 + P361 + P353 | IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER.                         |
| P304 + P340 + P312 | IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. CALL A POISON CENTER/ DOCTOR IF YOU FEEL UNWELL. |
| P331               | DO NOT INDUCE VOMITING.                                                                                                     |
| P332 + P313        | IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ ATTENTION.                                                                   |
| P370 + P378        | IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.                                        |
| 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  
P501  
**HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS**

STORE LOCKED UP.  
DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.  
NONE

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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MF: C<sub>7</sub>H<sub>16</sub>  
MW: 100.21  
CAS-NO. 142-82-5  
PURITY: ≥ 99% (ASSAY)

#### HAZARDOUS COMPONENTS

| COMPONENT | CAS NO./UNIQUE ID | CONCENTRATION  |
|-----------|-------------------|----------------|
| HEPTANE   | 142-82-5          | >= 80 - <= 100 |

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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### SECTION 4. FIRST-AID MEASURES

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#### DESCRIPTION OF FIRST AID MEASURES

|                                |                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GENERAL ADVICE</b>          | CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.                                                               |
| <b>IF INHALED</b>              | IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.                                                        |
| <b>IN CASE OF SKIN CONTACT</b> | IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.                                                                |
| <b>IN CASE OF EYE CONTACT</b>  | AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. REMOVE CONTACT LENSES.                                                                                              |
| <b>IF SWALLOWED</b>            | AFTER SWALLOWING: CAUTION IF VICTIM VOMITS. RISK OF ASPIRATION! KEEP AIRWAYS FREE. PULMONARY FAILURE POSSIBLE AFTER ASPIRATION OF VOMIT. CALL A PHYSICIAN IMMEDIATELY. |

**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**

FOR PERSONAL PROTECTION SEE SECTION 8

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## **SECTION 5. FIRE AND EXPLOSION DATA**

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### **EXTINGUISHING MEDIA**

**SUITABLE EXTINGUISHING MEDIA**

SUITABLE EXTINGUISHING MEDIA  
FOAM CARBON DIOXIDE (CO<sub>2</sub>) DRY POWDER

UNSUITABLE EXTINGUISHING MEDIA  
FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF EXTINGUISHING AGENTS ARE GIVEN.

**SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

FLASH BACK POSSIBLE OVER CONSIDERABLE DISTANCE.  
COMBUSTIBLE.  
PAY ATTENTION TO FLASHBACK.  
VAPOURS ARE HEAVIER THAN AIR AND MAY SPREAD ALONG FLOORS.  
DEVELOPMENT OF HAZARDOUS COMBUSTION GASES OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.  
FORMS EXPLOSIVE MIXTURES WITH AIR AT AMBIENT TEMPERATURES.

**ADVICE FOR FIREFIGHTERS**

WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION**

IN CASE OF FIRE: EVACUATE AREA. FIGHT FIRE REMOTELY DUE TO THE RISK OF EXPLOSION.  
REMOVE CONTAINER FROM DANGER ZONE AND COOL WITH WATER.  
PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR THE GROUND WATER SYSTEM.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

STAY IN DANGER AREA ONLY WITH SELF-CONTAINED BREATHING APPARATUS. PREVENT SKIN CONTACT BY KEEPING A SAFE DISTANCE OR BY WEARING SUITABLE PROTECTIVE CLOTHING.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

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|                                                                            |                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES</b> | ADVICE FOR NON-EMERGENCY PERSONNEL:<br>DO NOT BREATHE VAPOURS, AEROSOLS.<br>AVOID SUBSTANCE CONTACT.<br>ENSURE ADEQUATE VENTILATION.<br>KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.<br>EVACUATE THE DANGER AREA, OBSERVE EMERGENCY PROCEDURES, CONSULT AN EXPERT.<br>ADVICE FOR EMERGENCY RESPONDERS:<br>FOR PERSONAL PROTECTION SEE SECTION 8. |
| <b>ENVIRONMENTAL PRECAUTIONS</b>                                           | DO NOT LET PRODUCT ENTER DRAINS.<br>RISK OF EXPLOSION.                                                                                                                                                                                                                                                                                           |
| <b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP</b>               | COVER DRAINS. COLLECT, BIND, AND PUMP OFF SPILLS.<br>OBSERVE POSSIBLE MATERIAL RESTRICTIONS (SEE SECTIONS 7 AND 10).<br>TAKE UP CAREFULLY WITH LIQUID-ABSORBENT MATERIAL (E.G. CHEMIZORB®). DISPOSE OF PROPERLY.<br>CLEAN UP AFFECTED AREA.                                                                                                      |
| <b>REFERENCE TO OTHER SECTIONS</b>                                         | FOR DISPOSAL SEE SECTION 13.                                                                                                                                                                                                                                                                                                                     |

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## SECTION 7. HANDLING AND STORAGE

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|                                                                     |                                                                                                                                                                                                                       |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRECAUTIONS FOR SAFE HANDLING</b>                                | KEEP AWAY FROM OPEN FLAMES, HOT SURFACES AND SOURCES OF IGNITION.<br>TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.<br>WORK UNDER HOOD. DO NOT INHALE SUBSTANCE/MIXTURE. AVOID GENERATION OF VAPOURS/AEROSOLS. |
| <b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b> | KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL VENTILATED PLACE. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.<br>STORAGE CLASS : 3, FLAMMABLE LIQUIDS<br><br>STORE AT RT                                             |
| <b>SPECIFIC END USE(S)</b>                                          | APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.                                                                                                                                   |

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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## CONTROL PARAMETERS

### INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS

| COMPONENTS | CAS-NO.  | VALUE TYPE<br>(FORM OF<br>EXPOSURE) | CONTROL<br>PARAMETERS /<br>PERMISSIBLE<br>CONCENTRATION | BASIS     |
|------------|----------|-------------------------------------|---------------------------------------------------------|-----------|
| N-HEPTANE  | 142-82-5 | TWA                                 | 85 PPM 350 MG/M3                                        | NIOSH REL |
|            |          | C                                   | 440 PPM 1,800<br>MG/M3                                  | NIOSH REL |
|            |          | TWA                                 | 500 PPM 2,000<br>MG/M3                                  | OSHA Z-1  |
|            |          | TWA                                 | 200 PPM                                                 | ACGIH     |
|            |          | STEL                                | 400 PPM                                                 | ACGIH     |

## EXPOSURE CONTROLS

ENGINEERING  
MEASURES

NO DATA AVAILABLE

## PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE  
PROTECTION

USE EQUIPMENT FOR EYE PROTECTION TESTED AND  
APPROVED UNDER APPROPRIATE GOVERNMENT  
STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).  
SAFETY GLASSES

**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  
BREAK THROUGH TIME : 480 MIN  
GLOVE THICKNESS : 0.4 MM  
PROTECTIVE INDEX : FULL CONTACT  
MANUFACTURER : CAMATRIL (SIZE M)

**SPLASH CONTACT**

MATERIAL : NITRILE RUBBER  
BREAK THROUGH TIME : 60 MIN  
GLOVE THICKNESS : 0.2 MM  
PROTECTIVE INDEX : SPLASH CONTACT  
MANUFACTURER : DERMATRIL® P (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**

REQUIRED WHEN VAPOURS/AEROSOLS ARE GENERATED. OUR RECOMMENDATIONS ON FILTERING RESPIRATORY PROTECTION ARE BASED ON THE FOLLOWING STANDARDS: DIN EN 143, DIN 14387 AND OTHER ACCOMPANYING STANDARDS RELATING TO THE USED RESPIRATORY PROTECTION SYSTEM.

**HYGIENE MEASURES**

IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE.

**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.

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## SECTION 9.      PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|                                     |                                         |
|-------------------------------------|-----------------------------------------|
| APPEARANCE                          | Clear, colorless liquid                 |
| ODOUR                               | SWEET, PUNGENT                          |
| ODOUR THRESHOLD                     | NO DATA AVAILABLE                       |
| PH                                  | NO DATA AVAILABLE                       |
| MELTING                             | -90 TO -92 °C (LIT.)                    |
| POINT/FREEZING POINT                |                                         |
| BOILING POINT                       | 97 - 99 °C (LIT.)                       |
| FLASH POINT                         | 25 °F / -4 °C                           |
|                                     | METHOD: C.C., CLOSED CUP                |
| EVAPORATION RATE                    | NO DATA AVAILABLE                       |
| FLAMMABILITY (SOLID, GAS)           | NO DATA AVAILABLE                       |
| UPPER/LOWER                         | UPPER EXPLOSION LIMIT                   |
| FLAMMABILITY OR                     | 7 %(V)                                  |
| EXPLOSIVE LIMITS                    |                                         |
| LOWER EXPLOSION                     | 1.1 %(V)                                |
| LIMIT / LOWER                       |                                         |
| FLAMMABILITY LIMIT                  |                                         |
| VAPOUR PRESSURE                     | 48 HPA (68.0 °F / 20.0 °C)              |
| VAPOUR DENSITY                      | NO DATA AVAILABLE                       |
| RELATIVE DENSITY                    | NO DATA AVAILABLE                       |
| WATER SOLUBILITY                    | INSOLUBLE                               |
| PARTITION                           | LOG POW: > 3                            |
| COEFFICIENT: N-<br>OCTANOL/WATER    | BIOACCUMULATION IS NOT EXPECTED.        |
| AUTO-IGNITION                       | 433.4 °F / 223.0 °C                     |
| TEMPERATURE                         |                                         |
| DECOMPOSITION                       | NO DATA AVAILABLE                       |
| TEMPERATURE                         |                                         |
| VISCOSITY, KINEMATIC                | 0.64 MM <sup>2</sup> /S (68 °F / 20 °C) |
| EXPLOSIVE                           | NOT CLASSIFIED AS EXPLOSIVE.            |
| PROPERTIES                          |                                         |
| OXIDIZING PROPERTIES                | NO DATA AVAILABLE                       |
| <b>OTHER SAFETY<br/>INFORMATION</b> | NO DATA AVAILABLE                       |

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## SECTION 10.      STABILITY AND REACTIVITY

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|                           |                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------|
| <b>REACTIVITY</b>         | VAPOURS MAY FORM EXPLOSIVE MIXTURE WITH AIR.                                           |
| <b>CHEMICAL STABILITY</b> | THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS (ROOM TEMPERATURE). |

|                                                   |                                                                                                                                                 |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>POSSIBILITY OF<br/>HAZARDOUS<br/>REACTIONS</b> | RISK OF IGNITION OR FORMATION OF INFLAMMABLE<br>GASES OR VAPOURS WITH:<br>STRONG OXIDIZING AGENTS<br>PHOSPHORUS<br>IN THE PRESENCE OF: CHLORINE |
| <b>CONDITIONS TO<br/>AVOID</b>                    | WARMING.                                                                                                                                        |
| <b>INCOMPATIBLE<br/>MATERIALS</b>                 | RUBBER<br>VARIOUS PLASTICS                                                                                                                      |
| <b>HAZARDOUS<br/>DECOMPOSITION<br/>PRODUCTS</b>   | IN THE EVENT OF FIRE: SEE SECTION 5                                                                                                             |

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## SECTION 11. TOXICOLOGICAL INFORMATION

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### INFORMATION ON TOXICOLOGICAL EFFECTS

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACUTE TOXICITY</b>                            | LD50 ORAL - RAT - MALE AND FEMALE - > 5,000 MG/KG<br>(OECD TEST GUIDELINE 401)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: ISOOCTANE<br><br>LC50 INHALATION - RAT - MALE AND FEMALE - 4 H - ><br>29.29 MG/L – VAPOUR<br>(OECD TEST GUIDELINE 403)<br><br>LD50 DERMAL - RABBIT - MALE AND FEMALE - > 2,000<br>MG/KG (OECD TEST GUIDELINE 402)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: ISOOCTANE<br><br>NO DATA AVAILABLE |
| <b>SKIN<br/>CORROSION/IRRITATION</b>             | SKIN – RABBIT<br>RESULT: IRRITATING TO SKIN. - 24 H<br>(OECD TEST GUIDELINE 404)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: ISOOCTANE<br>REMARKS: REPEATED OR PROLONGED EXPOSURE MAY<br>CAUSE SKIN IRRITATION AND DERMATITIS, DUE TO<br>DEGREASING PROPERTIES OF THE PRODUCT.                                                                                                                                                                            |
| <b>SERIOUS EYE<br/>DAMAGE/EYE<br/>IRRITATION</b> | EYES – RABBIT<br>RESULT: NO EYE IRRITATION<br>(OECD TEST GUIDELINE 405)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: ISOOCTANE                                                                                                                                                                                                                                                                                                                             |

**RESPIRATORY OR SKIN  
SENSITISATION**

NO DATA AVAILABLE

**GERM CELL  
MUTAGENICITY**

MAXIMISATION TEST - GUINEA PIG  
RESULT: NEGATIVE  
(OECD TEST GUIDELINE 406)  
REMARKS: GERM CELL MUTAGENICITY

TEST TYPE: AMES TEST  
TEST SYSTEM: ESCHERICHIA COLI/SALMONELLA  
TYPHIMURIUM  
METABOLIC ACTIVATION: WITH AND WITHOUT  
METABOLIC ACTIVATION  
METHOD: OECD TEST GUIDELINE 471  
RESULT: NEGATIVE  
TEST TYPE: CHROMOSOME ABERRATION TEST IN  
VITRO  
TEST SYSTEM: RAT HEPATOCYTES  
METHOD: OECD TEST GUIDELINE 473  
RESULT: NEGATIVE

**CARCINOGENICITY**

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS NOT CLASSIFIABLE AS TO  
ITS CARCINOGENICITY BASED ON ITS IARC, ACGIH, NTP, OR EPA CLASSIFICATION.

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**

MAY CAUSE DROWSINESS OR DIZZINESS.  
REMARKS: CLASSIFIED ACCORDING TO REGULATION  
(EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2)

**SPECIFIC TARGET  
ORGAN TOXICITY -  
REPEATED EXPOSURE**

NO DATA AVAILABLE

**ASPIRATION HAZARD**

MAY BE FATAL IF SWALLOWED AND ENTERS  
AIRWAYS.  
ASPIRATION HAZARD, ASPIRATION MAY CAUSE  
PULMONARY OEDEMA AND PNEUMONITIS.

**ADDITIONAL  
INFORMATION**

RTECS: MI7700000

PROLONGED OR REPEATED EXPOSURE TO SKIN  
CAUSES DEFATTING AND DERMATITIS., CENTRAL  
NERVOUS SYSTEM DEPRESSION, NARCOSIS, DAMAGE  
TO THE LUNGS.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL,  
PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE  
NOT BEEN THOROUGHLY INVESTIGATED.

STOMACH - IRREGULARITIES - BASED ON HUMAN  
EVIDENCE

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**SECTION 12. ECOLOGICAL INFORMATION**

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**TOXICITY**

**TOXICITY TO FISH**

LL50 (RAINBOW DARTER (ETHEOSTOMA  
CAERULEUM)): > 13.4 MG/L

EXPOSURE TIME: 96 H

METHOD: OECD TEST GUIDELINE 203

REMARKS: (ECHA)

**TOXICITY TO DAPHNIA  
AND OTHER AQUATIC  
INVERTEBRATES**

EC50 (DAPHNIA MAGNA (WATER FLEA)): 0.23 MG/L

EXPOSURE TIME: 21 D

TEST TYPE: STATIC TEST

ANALYTICAL MONITORING: YES

GLP: YES

REMARKS: (ECHA)

(IN ANALOGY TO SIMILAR PRODUCTS)

**TOXICITY TO  
ALGAE/AQUATIC PLANTS**

EL50 (PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN  
ALGAE)): 29 MG/L

END POINT: GROWTH INHIBITION

EXPOSURE TIME: 72 H

METHOD: OECD TEST GUIDELINE 201

GLP: YES

REMARKS: (ECHA)

NOELR (PSEUDOKIRCHNERIELLA SUBCAPITATA  
(GREEN ALGAE)): 6.3 MG/L

END POINT: GROWTH INHIBITION

EXPOSURE TIME: 72 H

METHOD: OECD TEST GUIDELINE 201

GLP: YES

REMARKS: (ECHA)

M-FACTOR (ACUTE AQUATIC TOXICITY) : 1

M-FACTOR (CHRONIC AQUATIC TOXICITY) : 1

**ECOTOXICOLOGY ASSESSMENT**

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| ACUTE AQUATIC TOXICITY   | VERY TOXIC TO AQUATIC LIFE.                           |
| CHRONIC AQUATIC TOXICITY | VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. |

**PERSISTENCE AND DEGRADABILITY**

|                                 |                                                                                                                                        |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| BIODEGRADABILITY                | AEROBIC<br>CONCENTRATION: 3.3 MG/L<br>RESULT: READILY BIODEGRADABLE.<br>BIODEGRADATION: 70 %<br>EXPOSURE TIME: 10 D<br>REMARKS: (ECHA) |
| BIOCHEMICAL OXYGEN DEMAND (BOD) | 1,920 MG/G<br>INCUBATION TIME: 5 D<br>REMARKS: (IUCLID)                                                                                |
| THOD                            | 3,500 MG/G<br>REMARKS: (LIT.)                                                                                                          |
| BOD/THOD                        | 55 %<br>REMARKS: (LIT.)                                                                                                                |

**BIOACCUMULATIVE POTENTIAL**

|                                                       |                                                                                                      |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| BIOACCUMULATION PARTITION COEFFICIENT: NOCTANOL/WATER | REMARKS: INDICATION OF BIOACCUMULATION.<br>LOG POW: > 3<br>REMARKS: BIOACCUMULATION IS NOT EXPECTED. |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------|

**MOBILITY IN SOIL**

NO DATA AVAILABLE

**OTHER ADVERSE EFFECTS**

|                           |                                                                                                                                                                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OZONE-DEPLETION POTENTIAL | REGULATION: 40 CFR PROTECTION OF ENVIRONMENT;<br>PART 82 PROTECTION OF STRATOSPHERIC OZONE -<br>CAA SECTION 602 CLASS I SUBSTANCES<br>REMARKS: THIS PRODUCT NEITHER CONTAINS, NOR<br>WAS MANUFACTURED WITH A CLASS I OR CLASS II<br>ODS AS DEFINED BY THE U.S. CLEAN AIR ACT<br>SECTION 602 (40 CFR 82, SUBPT. A, APP.A + B). |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**RESULTS OF PBT AND VPVB ASSESSMENT**

SUBSTANCE DOES NOT MEET THE CRITERIA FOR PBT OR VPVB ACCORDING TO REGULATION (EC) NO 1907/2006, ANNEX XIII.

**ADDITIONAL ECOLOGICAL INFORMATION**

DO NOT EMPTY INTO DRAINS.  
AVOID RELEASE TO THE ENVIRONMENT.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

|                               |                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WASTE FROM RESIDUES           | WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH THE NATIONAL AND LOCAL REGULATIONS. LEAVE CHEMICALS IN ORIGINAL CONTAINERS. NO MIXING WITH OTHER WASTE. HANDLE UNCLEARED CONTAINERS LIKE THE PRODUCT ITSELF. |
| <b>CONTAMINATED PACKAGING</b> | DISPOSE OF AS UNUSED PRODUCT.                                                                                                                                                                                      |

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## SECTION 14.     **TRANSPORT INFORMATION**

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### **DOT (US)**

|                           |          |
|---------------------------|----------|
| PROPER SHIPPING NAME:     | HEPTANES |
| UN NUMBER:                | 1206     |
| CLASS:                    | 3        |
| PACKING GROUP:            | II       |
| REPORTABLE QUANTITY (RQ): |          |
| POISON INHALATION HAZARD: | NO       |
| MARINE POLLUTANT          | YES      |

### **IMDG**

|                       |          |
|-----------------------|----------|
| PROPER SHIPPING NAME: | HEPTANES |
| UN NUMBER:            | 1206     |
| CLASS:                | 3        |
| PACKING GROUP:        | II       |
| EMS-NO:               | F-E, S-D |
| MARINE POLLUTANT      | YES      |

### **IATA**

|                       |          |
|-----------------------|----------|
| PROPER SHIPPING NAME: | HEPTANES |
| UN NUMBER:            | 1206     |
| CLASS:                | 3        |
| PACKING GROUP:        | II       |

### **SPECIAL PRECAUTIONS FOR USER**

THE TRANSPORT CLASSIFICATION(S) PROVIDED HEREIN ARE FOR INFORMATIONAL PURPOSES ONLY, AND SOLELY BASED UPON THE PROPERTIES OF THE UNPACKAGED MATERIAL AS IT IS DESCRIBED WITHIN THIS SAFETY DATA SHEET. TRANSPORTATION CLASSIFICATIONS MAY VARY BY MODE OF TRANSPORTATION, PACKAGE SIZES, AND VARIATIONS IN REGIONAL OR COUNTRY REGULATIONS.

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## SECTION 15.     **REGULATORY INFORMATION**

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### **CERCLA REPORTABLE QUANTITY**

THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A CERCLA RQ.

THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 304 EHS RQ.

THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.

**SARA 313** 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.

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS LISTED UNDER THE U.S. CLEAN AIR ACT SECTION 111 SOCM I INTERMEDIATE OR FINAL VOC'S (40 CFR 60.489).

THIS PRODUCT DOES NOT CONTAIN ANY PRIORITY POLLUTANTS RELATED TO THE U.S. CLEAN WATER ACT

PRODUCT DOES NOT CONTAIN ANY LISTED CHEMICALS

**THE COMPONENTS OF THIS PRODUCT ARE REPORTED IN THE FOLLOWING INVENTORIES:**

**TSCA** ALL SUBSTANCES LISTED AS ACTIVE ON THE TSCA INVENTORY

**TSCA LIST**

NO SUBSTANCES ARE SUBJECT TO A SIGNIFICANT NEW USE RULE.  
NO SUBSTANCES ARE SUBJECT TO TSCA 12(B) EXPORT NOTIFICATION REQUIREMENTS.

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**SECTION 16. OTHER INFORMATION**

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

|      |                                                       |
|------|-------------------------------------------------------|
| H225 | HIGHLY FLAMMABLE LIQUID AND VAPOUR.                   |
| H304 | MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.         |
| H315 | CAUSES SKIN IRRITATION.                               |
| H336 | MAY CAUSE DROWSINESS OR DIZZINESS.                    |
| H410 | VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. |

**MSDS LEGEND**

|        |                                                          |
|--------|----------------------------------------------------------|
| MW:    | MOLECULAR WEIGHT                                         |
| MF:    | MOLECULAR FORMULA                                        |
| VOC:   | VOLATILE ORGANIC COMPOUNDS                               |
| ACGIH: | AMERICAN CONFERENCE OF GOVERNMENTAL 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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