

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 #: | 12923 |
| NAME: | Hexamethylphosphoramide |
| SYNONYMS: | Hexamethyl-phosphoric acid tri-amide HMPA |
| 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)

SKIN CORROSION (CATEGORY 1C), H314

SERIOUS EYE DAMAGE (CATEGORY 1), H318

GERM CELL MUTAGENICITY (CATEGORY 1B), H340

CARCINOGENICITY (CATEGORY 1B), H350

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)

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

H340 MAY CAUSE GENETIC DEFECTS.

H350 MAY CAUSE CANCER.

PRECAUTIONARY STATEMENT(S)

P201 OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
P202 DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE
BEEN READ AND UNDERSTOOD.
P264 WASH SKIN THOROUGHLY AFTER HANDLING.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE
PROTECTION/ FACE PROTECTION.
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 +
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/ DOCTOR.
P308 + P313 IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/
ATTENTION.
P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.
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**

NONE

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_6H_{18}N_3OP$

MW: 179.20

CAS-NO. 680-31-9

PURITY: $\geq 99\%$ (GC)

HAZARDOUS COMPONENTS

| COMPONENT | CLASSIFICATION | CONCENTRATION |
|--------------------------------|--|---------------|
| Hexamethylphosphoramide | | |
| | SKIN CORR. 1C; EYE DAM. 1; MUTA. 1B; CARC. 1B; H314, H318, H340, H350 CONCENTRATION LIMITS: \geq 0.01 %: CARC. 1B, H350; | $\leq 100\%$ |

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 | FIRST AIDERS NEED TO PROTECT THEMSELVES. SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. |
| IF INHALED | AFTER INHALATION: FRESH AIR. CALL IN PHYSICIAN. |
| IN CASE OF SKIN CONTACT | IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CALL A PHYSICIAN IMMEDIATELY. |
| IN CASE OF EYE CONTACT | AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES. |
| IF SWALLOWED | AFTER SWALLOWING: MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST), AVOID VOMITING (RISK OF PERFORATION). CALL A PHYSICIAN IMMEDIATELY. DO NOT ATTEMPT TO NEUTRALISE. |
| 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
EXTINGUISHING MEDIA**

SUITABLE EXTINGUISHING MEDIA
WATER FOAM CARBON DIOXIDE (CO₂) DRY POWDER

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

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

CARBON OXIDES
NITROGEN OXIDES (NOX)
OXIDES OF PHOSPHORUS
THERMAL DECOMPOSITION MAY PRODUCE TOXIC
FUMES OF PHOSPHORUS OXIDES AND/OR PHOSPHINE
CARBON OXIDES
NITROGEN OXIDES (NOX)
OXIDES OF PHOSPHORUS
COMBUSTIBLE.
VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD
ALONG FLOORS.
FORMS EXPLOSIVE MIXTURES WITH AIR ON INTENSE
HEATING.
DEVELOPMENT OF HAZARDOUS COMBUSTION GASES
OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.

**ADVICE 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.

FURTHER INFORMATION

SUPPRESS (KNOCK DOWN) GASES/VAPORS/MISTS
WITH A WATER SPRAY JET. PREVENT FIRE
EXTINGUISHING WATER FROM CONTAMINATING
SURFACE WATER OR THE GROUND WATER SYSTEM.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL
PRECAUTIONS,**

ADVICE FOR NON-EMERGENCY PERSONNEL: DO NOT
BREATHE VAPORS, AEROSOLS. AVOID SUBSTANCE

| | |
|--|--|
| PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES | CONTACT. ENSURE ADEQUATE VENTILATION. EVACUATE THE DANGER AREA, OBSERVE EMERGENCY PROCEDURES, CONSULT AN EXPERT. FOR PERSONAL PROTECTION SEE SECTION 8. |
| ENVIRONMENTAL PRECAUTIONS | DO NOT LET PRODUCT ENTER DRAINS. |
| METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP | COVER DRAINS. COLLECT, BIND, AND PUMP OFF SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS (SEE SECTIONS 7 AND 10). TAKE UP CAREFULLY WITH LIQUID-ABSORBENT MATERIAL (E.G. CHEMIZORB). DISPOSE OF PROPERLY. CLEAN UP AFFECTED AREA. |
| REFERENCE TO OTHER SECTIONS | FOR DISPOSAL SEE SECTION 13. |

SECTION 7. HANDLING AND STORAGE

| | |
|---|--|
| PRECAUTIONS FOR SAFE HANDLING | <p>ADVICE ON SAFE HANDLING WORK UNDER HOOD. DO NOT INHALE SUBSTANCE/MIXTURE. AVOID GENERATION OF VAPOURS/AEROSOLS. HYGIENE MEASURES IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE. FOR PRECAUTIONS SEE SECTION 2.2.</p> |
| CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES | <p>TIGHTLY CLOSED. KEEP IN A WELL-VENTILATED PLACE. KEEP LOCKED UP OR IN AN AREA ACCESSIBLE ONLY TO QUALIFIED OR AUTHORIZED PERSONS.</p> <p>AIR AND MOISTURE SENSITIVE. HANDLE AND STORE UNDER INERT GAS</p> <p>Store at 0-8 °C</p> <p>STORAGE CLASS STORAGE CLASS (TRGS 510): 6.1C: COMBUSTIBLE, ACUTE TOXIC CAT.3 / TOXIC COMPOUNDS OR COMPOUNDS WHICH CAUSING CHRONIC EFFECTS</p> |
| SPECIFIC END USE(S) | <p>APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED</p> |

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

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). TIGHTLY FITTING SAFETY GOGGLES |
|----------------------------|---|

| | |
|------------------------|---|
| 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: BUTYL-RUBBER
MINIMUM LAYER THICKNESS: 0.3 MM
BREAK THROUGH TIME: 480 MIN
MATERIAL TESTED: BUTOJECT (KCL 897 , SIZE M)

SPLASH CONTACT
MATERIAL: NITRILE RUBBER
MINIMUM LAYER THICKNESS: 0.2 MM
BREAK THROUGH TIME: 30 MIN
MATERIAL TESTED: DERMATRIL P (KCL 743 , 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 RESPIRATOR WITH MULTI- PURPOSE COMBINATION (US) OR TYPE ABEK (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. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|----------------------------------|
| APPEARANCE | Colorless to light yellow liquid |
| ODOUR | NO DATA AVAILABLE |
| ODOUR THRESHOLD | NO DATA AVAILABLE |
| PH | NO DATA AVAILABLE |
| MELTING | 7°C |
| POINT/FREEZING POINT | |
| INITIAL BOILING POINT | 230-232 °C/740 mmHg |
| AND BOILING RANGE | |
| FLASH POINT | 144 °C |
| EVAPORATION RATE | NO DATA AVAILABLE |
| FLAMMABILITY (SOLID, GAS) | NO DATA AVAILABLE |
| UPPER/LOWER | NO DATA AVAILABLE |
| FLAMMABILITY OR EXPLOSIVE LIMITS | |
| VAPOUR PRESSURE | NO DATA AVAILABLE |
| VAPOUR DENSITY | 6.19 - (AIR = 1.0) |
| RELATIVE DENSITY | 1.03 g/mL @ 25 °C |
| WATER SOLUBILITY | NO DATA AVAILABLE |
| PARTITION COEFFICIENT: N- OCTANOL/WATER | NO DATA AVAILABLE |
| AUTO-IGNITION | NO DATA AVAILABLE |
| TEMPERATURE | |
| DECOMPOSITION | NO DATA AVAILABLE |
| TEMPERATURE | |
| VISCOSITY | NO DATA AVAILABLE |

| | |
|----------------------|-------------------|
| EXPLOSIVE PROPERTIES | NO DATA AVAILABLE |
| OXIDIZING PROPERTIES | NONE |

OTHER SAFETY INFORMATION

| | |
|-------------------------|--------------------|
| RELATIVE VAPOUR DENSITY | 6.19 - (AIR = 1.0) |
|-------------------------|--------------------|

SECTION 10. STABILITY AND REACTIVITY

| | |
|---|---|
| REACTIVITY | FORMS EXPLOSIVE MIXTURES WITH AIR ON INTENSE HEATING. A RANGE FROM APPROX. 15 KELVIN BELOW THE FLASH POINT IS TO BE RATED AS CRITICAL. |
| CHEMICAL STABILITY | THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS (ROOM TEMPERATURE). |
| POSSIBILITY OF HAZARDOUS REACTIONS | NO DATA AVAILABLE |
| CONDITIONS TO AVOID | STRONG HEATING. |
| INCOMPATIBLE MATERIALS | STRONG OXIDIZING AGENTS, STRONG ACIDS |
| HAZARDOUS DECOMPOSITION PRODUCTS | IN THE EVENT OF FIRE: SEE SECTION 5 |

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

| | |
|---|--|
| ACUTE TOXICITY | <p>LD50 ORAL - RAT - 2,650 MG/KG</p> <p>REMARKS: BEHAVIORAL: CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD.</p> <p>KIDNEY, URETER, BLADDER: HEMATURIA.</p> <p>KIDNEY, URETER, BLADDER: INCONTINENCE. (RTECS)</p> <p>INHALATION: NO DATA AVAILABLE</p> <p>LD50 DERMAL - RABBIT - 2,600 MG/KG</p> <p>REMARKS: BEHAVIORAL: ALTERED SLEEP TIME (INCLUDING CHANGE IN RIGHTING REFLEX).</p> <p>BEHAVIORAL: SOMNOLENCE (GENERAL DEPRESSED ACTIVITY).</p> <p>LUNGS, THORAX, OR RESPIRATION: DYSPNEA. (RTECS)</p> <p>NO DATA AVAILABLE</p> |
| SKIN CORROSION/IRRITATION | REMARKS: CAUSES SKIN BURNS. |
| SERIOUS EYE DAMAGE/EYE IRRITATION | REMARKS: CAUSES SERIOUS EYE DAMAGE. |
| RESPIRATORY OR SKIN SENSITISATION | NO DATA AVAILABLE |
| GERM CELL MUTAGENICITY | MAY CAUSE GENETIC DEFECTS. |
| CARCINOGENICITY | PRESUMED TO HAVE CARCINOGENIC POTENTIAL FOR HUMANS |
| IARC: | 2B - GROUP 2B: POSSIBLY CARCINOGENIC TO HUMANS (HEXAMETHYLPHOSPHORAMIDE) |
| NTP: | RAHC - REASONABLY ANTICIPATED TO BE A HUMAN CARCINOGEN (HEXAMETHYLPHOSPHORAMIDE) |
| 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 | NO DATA AVAILABLE |
| SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE | NO DATA AVAILABLE |
| ASPIRATION HAZARD | NO DATA AVAILABLE |

**ADDITIONAL
INFORMATION**

RTECS: TD0875000

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

LIVER - IRREGULARITIES - BASED ON HUMAN
EVIDENCE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH

LC50 - LEPOMIS MACROCHIRUS (BLUEGILL) - 7,240
MG/L - 96 H

**TOXICITY TO DAPHNIA
AND OTHER AQUATIC
INVERTEBRATES**

EC50 - DAPHNIA MAGNA (WATER FLEA) - 6,670 MG/L -
48 H

**PERSISTENCE AND
DEGRADABILITY**

NO DATA AVAILABLE

BIOACCUMULATIVE POTENTIAL

BIOACCUMULATION

CYPRINODON VARIEGATUS (SHEEPSHEAD MINNOW) -
33 D
- 40.4 MG/L (HEXAMETHYLPHOSPHORAMIDE)
BIOCONCENTRATION FACTOR (BCF): 3.3

MOBILITY IN SOIL

NO DATA AVAILABLE

**RESULTS OF PBT AND
VPVB ASSESSMENT**

PBT/VPVB ASSESSMENT NOT AVAILABLE AS
CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT
CONDUCTED

**OTHER ADVERSE
EFFECTS**

NO DATA AVAILABLE

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 LIQUID, BASIC, ORGANIC, N.O.S. (Hexamethylphosphoramide) |
| UN NUMBER: | 3267 |
| CLASS: | 8 |
| PACKING GROUP: | III |
| REPORTABLE QUANTITY (RQ): | 1 LBS |
| POISON INHALATION HAZARD: | NO |

IMDG

| | |
|-----------------------|---|
| PROPER SHIPPING NAME: | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Hexamethylphosphoramide) |
| UN NUMBER: | 3267 |
| CLASS: | 8 |
| PACKING GROUP: | III |
| EMS-NO: | F-A, S-B |

IATA

| | |
|-----------------------|---|
| PROPER SHIPPING NAME: | CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Hexamethylphosphoramide) |
| UN NUMBER: | 3267 |
| CLASS: | 8 |
| PACKING GROUP: | III |

SECTION 15. REGULATORY INFORMATION

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

SARA 313 COMPONENTS THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

| | CAS-NO. | REVISION DATE |
|-------------------------|----------|---------------|
| Hexamethylphosphoramide | 680-31-9 | 7/1/2007 |

SARA 311/312 HAZARDS CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

| | CAS-NO. | REVISION DATE |
|-------------------------|----------|---------------|
| Hexamethylphosphoramide | 680-31-9 | 7/1/2007 |

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

| | CAS-NO. | REVISION DATE |
|-------------------------|----------|---------------|
| Hexamethylphosphoramide | 680-31-9 | 7/1/2007 |

CALIFORNIA PROP. 65 COMPONENTS WARNING! THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

| | CAS-NO. | REVISION DATE |
|-------------------------|----------|---------------|
| Hexamethylphosphoramide | 680-31-9 | 9/28/2007 |

SECTION 16. OTHER INFORMATION

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

| | |
|------|--|
| H314 | CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. |
| H340 | MAY CAUSE GENETIC DEFECTS. |
| H350 | MAY CAUSE CANCER. |

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:

*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 : 3.2

REVISION DATE : 01/11/2024