

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 #: | 27147 |
| NAME: | <i>m</i> -Phenylenediamine |
| SYNONYMS: | 1,3-Diaminobenzene |
| 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)

ACUTE TOXICITY, ORAL (CATEGORY 3), H301
ACUTE TOXICITY, INHALATION (CATEGORY 3), H331
ACUTE TOXICITY, DERMAL (CATEGORY 3), H311
EYE IRRITATION (CATEGORY 2A), H319
SKIN SENSITISATION (CATEGORY 1), H317

GERM CELL MUTAGENICITY (CATEGORY 2), H341
ACUTE AQUATIC TOXICITY (CATEGORY 1), H400
CHRONIC AQUATIC TOXICITY (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)

H301 + H311 + H331 TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF
INHALED

H317 MAY CAUSE AN ALLERGIC SKIN REACTION.

H319 CAUSES SERIOUS EYE IRRITATION.

H341 SUSPECTED OF CAUSING GENETIC DEFECTS.

H410 VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING
EFFECTS.

PRECAUTIONARY STATEMENT(S)

P201 OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.

P202 DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE
BEEN READ AND UNDERSTOOD.

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

P264 WASH SKIN THOROUGHLY AFTER HANDLING.

P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS
PRODUCT.

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 EYE PROTECTION/ FACE PROTECTION.

P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING.

P281 USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED.

P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR
DOCTOR/ PHYSICIAN. RINSE MOUTH.

P302 + P352 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.

P302 + P352 + P312 IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.
CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU
FEEL UNWELL.

P304 + P340 + P311 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT
REST IN A POSITION COMFORTABLE FOR BREATHING. CALL
A POISON CENTER OR DOCTOR/ PHYSICIAN.

P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL
MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND
EASY TO DO. CONTINUE RINSING.

P308 + P313 IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/
ATTENTION.

P333 + P313 IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL
ADVICE/ ATTENTION.

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

P361 REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED
CLOTHING.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.

P391 COLLECT SPILLAGE.

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

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 RAPIDLY ABSORBED THROUGH SKIN.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_6H_8N_2$

MW: 108.14

CAS-NO. 108-45-2

PURITY: $\geq 99.9\%$

HAZARDOUS COMPONENTS

| COMPONENT | CLASSIFICATION | CONCENTRATION |
|---------------------------|--|---------------|
| M-PHENYLENEDIAMINE | | |
| | ACUTE TOX. 3; EYE IRRIT. 2A; SKIN SENS. 1; MUTA. 2; AQUATIC ACUTE 1; AQUATIC CHRONIC 1; H301 + H311 + H331, H317, H319, H341, H410 | $\leq 100\%$ |

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 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 | 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. |
| IF SWALLOWED | 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 EXTINGUISHING MEDIA | USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE. |
| SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE | CARBON OXIDES, NITROGEN OXIDES (NOX) |
| ADVICE FOR FIREFIGHTERS | WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY. |
| FURTHER INFORMATION | NO DATA AVAILABLE |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| PERSONAL PRECAUTIONS, PROTECTIVE | WEAR RESPIRATORY PROTECTION. AVOID DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR |
|---|---|

| | |
|--|--|
| EQUIPMENT AND EMERGENCY PROCEDURES | 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. |
| REFERENCE TO OTHER SECTIONS | FOR DISPOSAL SEE SECTION 13. |

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 ANY INCOMPATIBILITIES | KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. STORE UNDER ARGON. KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. MAY DARKEN ON STORAGE STORAGE CLASS (TRGS 510): NON-COMBUSTIBLE, ACUTE TOXIC CAT.3 / TOXIC HAZARDOUS MATERIALS OR HAZARDOUS MATERIALS CAUSING CHRONIC EFFECTS |
| 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 PARAMETERS | BASIS |
|--------------------|----------------|---|---------------------------|---|
| M-PHENYLENEDIAMINE | 108-45-2 | TWA | 0.100000 MG/M3 | USA. ACGIH THRESHOLD LIMIT VALUES (TLV) |
| | REMARKS | LIVER DAMAGE SKIN IRRITATION NOT CLASSIFIABLE AS A HUMAN CARCINOGEN | | |
| | | TWA | 0.1 MG/M3 | USA. ACGIH THRESHOLD LIMIT VALUES (TLV) |
| | | LIVER DAMAGE SKIN IRRITATION NOT CLASSIFIABLE AS A HUMAN CARCINOGEN | | |

EXPOSURE CONTROLS

APPROPRIATE

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

ENGINEERING CONTROLS

WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.

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: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 FULL-FACE 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 to grey crystalline powder |
| ODOUR | NO DATA AVAILABLE |
| ODOUR THRESHOLD | NO DATA AVAILABLE |
| PH | NO DATA AVAILABLE |
| MELTING POINT/FREEZING POINT | 61-64 °C |
| INITIAL BOILING POINT AND BOILING RANGE | 282 - 284 °C |
| FLASH POINT | |
| EVAPORATION RATE | NO DATA AVAILABLE |
| FLAMMABILITY (SOLID, GAS) | NO DATA AVAILABLE |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | NO DATA AVAILABLE |
| VAPOUR PRESSURE | 0.83 HPA (0.62 MMHG) AT 100 C |
| VAPOUR DENSITY | NO DATA AVAILABLE |
| RELATIVE DENSITY | |
| WATER SOLUBILITY | 429 G/L AT 20 C- OECD TEST GUIDELINE 105 |
| PARTITION COEFFICIENT: N- OCTANOL/WATER | NO DATA AVAILABLE |
| AUTO-IGNITION TEMPERATURE | NO DATA AVAILABLE |
| DECOMPOSITION TEMPERATURE | NO DATA AVAILABLE |
| VISCOSITY | NO DATA AVAILABLE |
| EXPLOSIVE PROPERTIES | NO DATA AVAILABLE |
| OXIDIZING PROPERTIES | NO DATA AVAILABLE |

OTHER SAFETY INFORMATION

| | |
|--------------|-------------------|
| BULK DENSITY | 709 KG/M3 AT 22 C |
|--------------|-------------------|

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 | NO DATA AVAILABLE |
| INCOMPATIBLE MATERIALS | ACIDS, ACID CHLORIDES, ACID ANHYDRIDES, CHLOROFORMATES, STRONG OXIDIZING AGENTS |
| HAZARDOUS DECOMPOSITION PRODUCTS | 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 - 280 MG/KG LC50 INHALATION - RAT - MALE - 4 H - 3.2 MG/L DERMAL: NO DATA AVAILABLE |
| SKIN CORROSION/IRRITATION | SKIN - RABBIT RESULT: NO SKIN IRRITATION |
| SERIOUS EYE DAMAGE/EYE IRRITATION | EYES - RABBIT RESULT: IRRITATING TO EYES. (OECD TEST GUIDELINE 405) |
| RESPIRATORY OR SKIN SENSITISATION | IN VIVO ASSAY - MOUSE MAY CAUSE SENSITISATION BY SKIN CONTACT. (OECD TEST GUIDELINE 429) |
| GERM CELL MUTAGENICITY | NO DATA AVAILABLE |
| CARCINOGENICITY | CARCINOGENICITY - RAT - SUBCUTANEOUS TUMORIGENIC:EQUIVOCAL TUMORIGENIC AGENT BY RTECS CRITERIA. TUMORIGENIC:TUMORS AT SITE OR APPLICATION. |
| IARC: | 3 - GROUP 3: NOT CLASSIFIABLE AS TO ITS CARCINOGENICITY TO HUMANS (M- PHENYLENEDIAMINE) |
| 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 IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA. |

| | |
|---|--|
| REPRODUCTIVE TOXICITY | DEVELOPMENTAL TOXICITY - RAT - INTRAPERITONEAL EFFECTS ON EMBRYO OR FETUS: FETAL DEATH. |
| 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: SS7700000 TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED., NAUSEA, DIZZINESS, HEADACHE, DERMATITIS, PULMONARY EDEMA. EFFECTS MAY BE DELAYED., DISCOLORATION OF THE SKIN. STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| TOXICITY | |
| TOXICITY TO FISH | STATIC TEST LC50 - PIMEPHALES PROMELAS (FATHEAD MINNOW) - 1,618 MG/L - 96 H (OECD TEST GUIDELINE 203) |
| TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES | STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 4.9 MG/L - 48 H (OECD TEST GUIDELINE 202) |
| PERSISTENCE AND DEGRADABILITY | |
| BIODEGRADABILITY | AEROBIC - EXPOSURE TIME 28 D RESULT: 2 % - NOT READILY BIODEGRADABLE. |
| BIOACCUMULATIVE POTENTIAL | NO DATA AVAILABLE |
| 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 AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL HANDLING OR DISPOSAL. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

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: PHENYLENEDIAMINES
UN NUMBER: 1673
CLASS: 6.1
PACKING GROUP: III
REPORTABLE QUANTITY (RQ):
POISON INHALATION HAZARD: NO

IMDG

PROPER SHIPPING NAME: PHENYLENEDIAMINES
UN NUMBER: 1673
CLASS: 6.1
PACKING GROUP: III
EMS-NO: F-A, S-A
MARINE POLLUTANT: YES

IATA

PROPER SHIPPING NAME: PHENYLENEDIAMINES
UN NUMBER: 1673
CLASS: 6.1
PACKING GROUP: III

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

| | CAS-NO. | REVISION DATE |
|----------------------------|----------|---------------|
| <i>m</i> -Phenylenediamine | 108-45-2 | 7/1/2007 |

SARA 311/312 HAZARDS ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

| | CAS-NO. | REVISION DATE |
|----------------------------|----------|---------------|
| <i>m</i> -Phenylenediamine | 108-45-2 | 7/1/2007 |

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

| | CAS-NO. | REVISION DATE |
|----------------------------|----------|---------------|
| <i>m</i> -Phenylenediamine | 108-45-2 | 7/1/2007 |

NEW JERSEY RIGHT TO KNOW COMPONENTS

| | CAS-NO. | REVISION DATE |
|----------------------------|----------|---------------|
| <i>m</i> -Phenylenediamine | 108-45-2 | 7/1/2007 |

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.

| | |
|--------------------|--|
| ACUTE TOX. | ACUTE TOXICITY |
| AQUATIC ACUTE | ACUTE AQUATIC TOXICITY |
| AQUATIC CHRONIC | CHRONIC AQUATIC TOXICITY |
| EYE IRRIT. | EYE IRRITATION |
| H301 | TOXIC IF SWALLOWED. |
| H301 + H311 + H331 | TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF INHALED |
| H311 | TOXIC IN CONTACT WITH SKIN. |
| H317 | MAY CAUSE AN ALLERGIC SKIN REACTION. |
| H319 | CAUSES SERIOUS EYE IRRITATION. |
| H331 | TOXIC IF INHALED. |
| H341 | SUSPECTED OF CAUSING GENETIC DEFECTS. |

HMIS RATING

HEALTH HAZARD: 2
CHRONIC HEALTH HAZARD: *
FLAMMABILITY: 1
PHYSICAL HAZARD 0

NFPA RATING

HEALTH HAZARD: 2
FIRE HAZARD: 1
REACTIVITY HAZARD: 0

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.*