

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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|                                 |   |
|---------------------------------|---|
| CATALOG #:                      | 30110   |
| NAME:                           | Dimethylglyoxime                                    |
| SYNONYMS:                       | 2,3-Butanedione dioxime<br>Diacetyldioxime          |
| 24 HOUR EMERGENCY<br>TELEPHONE: | (800) 535-5053(USA)<br>352-323-3500 (INTERNATIONAL) |
| TO REQUEST AN MSDS:             | (800) 869-9290                                      |
| CUSTOMER<br>SERVICE:            | (630) 766-2112                                      |

### 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 SOLIDS (CATEGORY 2), H228  
ACUTE TOXICITY, ORAL (CATEGORY 3), H301

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)**

H228 FLAMMABLE SOLID.

H301 TOXIC IF SWALLOWED.

**PRECAUTIONARY STATEMENT(S)**

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. - NO SMOKING.

P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.

P241 USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING/ EQUIPMENT.

P264 WASH SKIN THOROUGHLY AFTER HANDLING.

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

P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.

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

P321 SPECIFIC TREATMENT (SEE SUPPLEMENTAL FIRST AID INSTRUCTIONS ON THIS LABEL).

P330 RINSE MOUTH.

P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM FOR EXTINCTION.

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

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF:  $C_4H_8N_2O_2$

MW: 116.12

CAS-NO. 95-45-4

PURITY:

**HAZARDOUS COMPONENTS**

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| COMPONENT                  | CLASSIFICATION                            | CONCENTRATION |
|----------------------------|---|---------------|
| <b>BUTANEDIONE DIOXIME</b> |   |               |
|                            | FLAM. SOL. 2; ACUTE TOX. 3;<br>H228, H301 | -             |

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>  | WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.                           |
| <b>IN CASE OF EYE CONTACT</b>   | FLUSH EYES WITH WATER AS A PRECAUTION.  |
| <b>IF SWALLOWED</b>   | DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN. |
| <b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>                | THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11         |
| <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b> | NO DATA AVAILABLE   |

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## SECTION 5. FIRE AND EXPLOSION DATA

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### EXTINGUISHING MEDIA

|                                     |  |
|-------------------------------------|--|
| <b>SUITABLE EXTINGUISHING MEDIA</b> | USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE. |
|-------------------------------------|--|

|  |   |
|--|---|
| <b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b> | CARBON OXIDES, NITROGEN OXIDES (NOX)                                    |
| <b>ADVICE FOR FIREFIGHTERS</b>                               | WEAR SELF CONTAINED BREATHING APPARATUS FOR FIRE FIGHTING IF NECESSARY. |
| <b>FURTHER INFORMATION</b>                                   | USE WATER SPRAY TO COOL UNOPENED CONTAINERS.                            |

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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|  |  |
|--|--|
| <b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES</b> | WEAR RESPIRATORY PROTECTION. AVOID DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST. FOR PERSONAL PROTECTION SEE SECTION 8.   |
| <b>ENVIRONMENTAL PRECAUTIONS</b>   | PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.   |
| <b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP</b>               | SWEEP UP AND SHOVEL. 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). KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL. CONTAIN SPILLAGE, PICK UP WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET- BRUSHING AND TRANSFER TO A CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13). |
| <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> | AVOID CONTACT WITH SKIN AND EYES. AVOID FORMATION OF DUST AND AEROSOLS. PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. FOR PRECAUTIONS SEE SECTION 2.2. |
|--------------------------------------|--|

|   |   |
|---|---|
| <b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b> | KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE.<br>RECOMMENDED STORAGE TEMPERATURE: 2 - 8 C |
| <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**

|   |   |
|---|---|
| <b>COMPONENTS WITH WORKPLACE CONTROL PARAMETERS</b> | CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES. |
|---|---|

### **EXPOSURE CONTROLS**

|   |   |
|---|---|
| <b>APPROPRIATE ENGINEERING CONTROLS</b> | AVOID CONTACT WITH SKIN, EYES AND CLOTHING.<br>WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT. |
|---|---|

### **PERSONAL PROTECTIVE EQUIPMENT**

|                            |  |
|----------------------------|--|
| <b>EYE/FACE PROTECTION</b> | 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, 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 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.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

|  |  |
|--|--|
| APPEARANCE                                   | White crystalline powder   |
| ODOUR  | NO DATA AVAILABLE  |
| ODOUR THRESHOLD                              | NO DATA AVAILABLE  |
| PH   | NO DATA AVAILABLE  |
| MELTING POINT/FREEZING POINT                 | 240 °C (Approx.)   |
| INITIAL BOILING POINT AND BOILING RANGE      |  |
| FLASH POINT                                  |  |
| EVAPORATION RATE                             | NO DATA AVAILABLE  |
| FLAMMABILITY (SOLID, GAS)                    | THE SUBSTANCE OR MIXTURE IS A FLAMMABLE SOLID WITH THE CATEGORY 2. |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | NO DATA AVAILABLE  |
| VAPOUR PRESSURE                              | NO DATA AVAILABLE  |
| VAPOUR DENSITY                               | NO DATA AVAILABLE  |
| RELATIVE DENSITY                             |  |
| WATER SOLUBILITY                             | INSOLUBLE  |
| 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 | 500 KG/M3 |
|--------------|-----------|

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**SECTION 10. STABILITY AND REACTIVITY**

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|   |   |
|---|---|
| <b>REACTIVITY</b>                         | NO DATA AVAILABLE   |
| <b>CHEMICAL STABILITY</b>                 | STABLE UNDER RECOMMENDED STORAGE CONDITIONS.                          |
| <b>POSSIBILITY OF HAZARDOUS REACTIONS</b> | NO DATA AVAILABLE   |
| <b>CONDITIONS TO AVOID</b>                | HEAT, FLAMES AND SPARKS. EXTREMES OF TEMPERATURE AND DIRECT SUNLIGHT. |

**INCOMPATIBLE  
MATERIALS**

STRONG OXIDIZING AGENTS

**HAZARDOUS  
DECOMPOSITION  
PRODUCTS**

OTHER DECOMPOSITION PRODUCTS - NO DATA  
AVAILABLE  
IN THE EVENT OF FIRE: SEE SECTION 5

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

**ACUTE TOXICITY**

LDLO ORAL - RAT - 250 MG/KG  
INHALATION: NO DATA AVAILABLE  
DERMAL: NO DATA AVAILABLE

**SKIN  
CORROSION/IRRITATION**

NO DATA AVAILABLE

**SERIOUS EYE  
DAMAGE/EYE IRRITATION**

NO DATA AVAILABLE

**RESPIRATORY OR SKIN  
SENSITISATION**

NO DATA AVAILABLE

**GERM CELL  
MUTAGENICITY**

HAMSTER  
EMBRYO  
MORPHOLOGICAL TRANSFORMATION.

**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.

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**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - SINGLE  
EXPOSURE**

NO DATA AVAILABLE



|   |                   |
|---|-------------------|
| <b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b> | NO DATA AVAILABLE |
| <b>ASPIRATION HAZARD</b>                                  | NO DATA AVAILABLE |
| <b>ADDITIONAL INFORMATION</b>                             | RTECS: EK2975000  |

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**SECTION 12. ECOLOGICAL INFORMATION**

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|   |  |
|---|--|
| <b>TOXICITY</b>                           | NO DATA AVAILABLE  |
| <b>PERSISTENCE AND DEGRADABILITY</b>      | NO DATA AVAILABLE  |
| <b>BIOACCUMULATIVE POTENTIAL</b>          | NO DATA AVAILABLE  |
| <b>MOBILITY IN SOIL</b>                   | NO DATA AVAILABLE  |
| <b>RESULTS OF PBT AND VPVB ASSESSMENT</b> | PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED |
| <b>OTHER ADVERSE EFFECTS</b>              | NO DATA AVAILABLE  |

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

|                               |  |
|-------------------------------|--|
| <b>PRODUCT</b>                | BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. |
| <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: FLAMMABLE SOLIDS, TOXIC, ORGANIC, N.O.S.  
(Dimethylglyoxime)  
UN NUMBER: 2926  
CLASS: 4.1 (6.1)  
PACKING GROUP: III  
MARINE POLLUTANT: NO  
POISON INHALATION: NO  
HAZARD:

**IMDG**

PROPER SHIPPING NAME: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
(Dimethylglyoxime)  
UN NUMBER: 2926  
CLASS: 4.1 (6.1)  
PACKING GROUP: III  
EMS-NO: F-A, S-G  
MARINE POLLUTANT: NO

**IATA**

PROPER SHIPPING NAME: FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.  
(Dimethylglyoxime)  
UN NUMBER: 2926  
CLASS: 4.1 (6.1)  
PACKING GROUP: III

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** SARA 302: NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

**SARA 313 COMPONENTS** 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.

**SARA 311/312 HAZARDS** FIRE HAZARD, ACUTE HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS** NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

|                  | CAS-NO. | REVISION DATE |
|------------------|---------|---------------|
| Dimethylglyoxime | 95-45-4 |               |

## NEW JERSEY RIGHT TO KNOW COMPONENTS

|                  | CAS-NO. | REVISION DATE |
|------------------|---------|---------------|
| Dimethylglyoxime | 95-45-4 |               |

**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.

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## SECTION 16. OTHER INFORMATION

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

|            |                     |
|------------|---------------------|
| ACUTE TOX. | ACUTE TOXICITY      |
| FLAM. SOL. | FLAMMABLE SOLIDS    |
| H228       | FLAMMABLE SOLID.    |
| H301       | TOXIC IF SWALLOWED. |

### HMIS RATING

|                        |   |
|------------------------|---|
| HEALTH HAZARD:         | 2 |
| CHRONIC HEALTH HAZARD: |   |
| FLAMMABILITY:          | 0 |
| PHYSICAL HAZARD        | 2 |

### NFPA RATING

|                    |   |
|--------------------|---|
| HEALTH HAZARD:     | 2 |
| FIRE HAZARD:       | 0 |
| REACTIVITY HAZARD: | 2 |

### 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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*DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*