

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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|                                 |   |
|---------------------------------|---|
| CATALOG #:                      | 43996   |
| NAME:                           | 3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride |
| SYNONYMS:                       | 2-Phenyl-3-(4-nitrophenyl)-5-methyltetrazolium chloride |
| 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  |

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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 SOLIDS (CATEGORY 2), H228

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

#### GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM



SIGNAL WORD

WARNING

**HAZARD STATEMENT(S)**

H228 FLAMMABLE SOLID.

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

**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:  $C_{14}H_{12}ClN_5O_2$

MW: 317.73

CAS-NO.

PURITY:  $\geq 98\%$  (HPLC)

**HAZARDOUS COMPONENTS**

| COMPONENT  | CLASSIFICATION | CONCENTRATION |
|--|----------------|---------------|
| <b>3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride</b> |                |               |
|  | -              | -             |

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**

**GENERAL ADVICE**

CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.

|   |  |
|---|--|
| <b>IF INHALED</b>   | REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. GET MEDICAL ADVICE/ATTENTION IF YOU FEEL UNWELL.  |
| <b>IN CASE OF SKIN CONTACT</b>  | REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER. IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION.                          |
| <b>IN CASE OF EYE CONTACT</b>   | RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION. |
| <b>IF SWALLOWED</b>   | GET MEDICAL ADVICE/ATTENTION IF YOU FEEL UNWELL. RINSE MOUTH.  |
| <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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|  |   |
|--|---|
| <b>EXTINGUISHING MEDIA</b>                                   |   |
| <b>SUITABLE EXTINGUISHING MEDIA</b>                          | DRY CHEMICAL, FOAM, WATER SPRAY, CARBON DIOXIDE.  |
| <b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b> | CARBON OXIDES NITROGEN OXIDES HALOGENATED COMPOUNDS   |
| <b>ADVICE FOR FIREFIGHTERS</b>                               | WEAR SELF-CONTAINED BREATHING APPARATUS IF POSSIBLE.<br>COMBAT FIRE FROM A SHELTERED POSITION.  |
| <b>FURTHER INFORMATION</b>                                   | WARNING: HIGHLY TOXIC HCL GAS IS PRODUCED DURING COMBUSTION.<br>EXPLOSION RISK IN CASE OF FIRE. FIGHT FIRE REMOTELY DUE TO THE RISK OF EXPLOSION. TAKE CARE AS IT MAY DECOMPOSE UPON COMBUSTION OR IN HIGH TEMPERATURES TO GENERATE POISONOUS FUME. |

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

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|  |   |
|--|---|
| <b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES</b> | USE PERSONAL PROTECTIVE EQUIPMENT. KEEP PEOPLE AWAY FROM AND UPWIND OF SPILL/LEAK. ENTRY TO NON-INVOLVED PERSONNEL SHOULD BE CONTROLLED AROUND THE LEAKAGE AREA BY ROPING OFF, ETC.                     |
| <b>ENVIRONMENTAL PRECAUTIONS</b>   | PREVENT PRODUCT FROM ENTERING DRAINS.   |
| <b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP</b>               | SWEEP DUST TO COLLECT IT INTO AN AIRTIGHT CONTAINER, TAKING CARE NOT TO DISPERSE IT. ADHERED OR COLLECTED MATERIAL SHOULD BE PROMPTLY DISPOSED OF, IN ACCORDANCE WITH APPROPRIATE LAWS AND REGULATIONS. |
| <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>                                | HANDLING IS PERFORMED IN A WELL VENTILATED PLACE. WEAR SUITABLE PROTECTIVE EQUIPMENT. BE CAREFUL NOT TO CAUSE LEAKAGE, OVERFLOW, OR DISPERSION. STEAM SHOULD NOT BE GENERATED UNNECESSARILY. KEEP AWAY FROM HEAT/SPARKS/OPEN FLAME/HOT SURFACES. -NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. USE EXPLOSION-PROOF EQUIPMENT. AVOID SHOCK AND FRICTION. WASH HANDS AND FACE BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT.<br>USE A LOCAL EXHAUST IF DUST OR AEROSOL WILL BE GENERATED.<br>AVOID CONTACT WITH SKIN, EYES AND CLOTHING. |
| <b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b> | KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL AND DARK PLACE.<br>BE SURE NOT TO GIVE THE CONTAINER UNEXPECTED IMPACTS, SUCH AS FALLING DOWN OR FALLING OFF. STORE AWAY FROM INCOMPATIBLE MATERIALS SUCH AS OXIDIZING AGENTS.<br>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.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **CONTROL PARAMETERS**

#### **COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

### **EXPOSURE CONTROLS**

#### **APPROPRIATE ENGINEERING CONTROLS**

FOLLOW SAFE INDUSTRIAL ENGINEERING/LABORATORY PRACTICES WHEN HANDLING ANY CHEMICAL. INSTALL A CLOSED SYSTEM OR LOCAL EXHAUST. ALSO INSTALL SAFETY SHOWER AND EYE BATH.

### **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.

#### **BODY PROTECTION**

IMPERVIOUS CLOTHING, 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**

DUST RESPIRATOR. FOLLOW LOCAL AND NATIONAL REGULATIONS.

#### **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 to yellow powder to crystal |
| ODOUR  | NO DATA AVAILABLE                 |
| ODOUR THRESHOLD                              | NO DATA AVAILABLE                 |
| PH   | NO DATA AVAILABLE                 |
| MELTING POINT/FREEZING POINT                 |                                   |
| INITIAL BOILING POINT AND BOILING RANGE      |                                   |
| FLASH POINT                                  |                                   |
| EVAPORATION RATE                             | NO DATA AVAILABLE                 |
| FLAMMABILITY (SOLID, GAS)                    | NO DATA AVAILABLE                 |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | NO DATA AVAILABLE                 |
| VAPOUR PRESSURE                              | NO DATA AVAILABLE                 |
| VAPOUR DENSITY                               | NO DATA AVAILABLE                 |
| RELATIVE DENSITY                             |                                   |
| WATER SOLUBILITY                             | NO DATA AVAILABLE                 |
| 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**

NO DATA AVAILABLE

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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 PROPER CONDITIONS.   |
| <b>POSSIBILITY OF HAZARDOUS REACTIONS</b> | MAY EXPLOSIVELY DECOMPOSE ON HEATING, SHOCK, FRICTION, ETC.               |
| <b>CONDITIONS TO AVOID</b>                | HEAT, SPARK, OPEN FLAME, STATIC DISCHARGE, SHOCK, FRICTION                |
| <b>INCOMPATIBLE MATERIALS</b>             | OXIDIZING AGENTS  |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b>   | CARBON DIOXIDE, CARBON MONOXIDE, NITROGEN OXIDES (NOX), HYDROGEN CHLORIDE |

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

|   |   |
|---|---|
| <b>ACUTE TOXICITY</b>   | NO DATA AVAILABLE   |
|   | INHALATION: NO DATA AVAILABLE   |
|   | DERMAL: NO DATA AVAILABLE   |
|   | NO DATA AVAILABLE   |
| <b>SKIN<br/>CORROSION/IRRITATION</b>                              | NO DATA AVAILABLE   |
| <b>SERIOUS EYE<br/>DAMAGE/EYE IRRITATION</b>                      | NO DATA AVAILABLE   |
| <b>RESPIRATORY OR SKIN<br/>SENSITISATION</b>                      | NO DATA AVAILABLE   |
| <b>GERM CELL<br/>MUTAGENICITY</b>                                 | NO DATA AVAILABLE   |
| <b>CARCINOGENICITY</b>  |   |
| 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.                                |
| <b>REPRODUCTIVE TOXICITY</b>                                      | NO DATA AVAILABLE   |
| <b>SPECIFIC TARGET ORGAN<br/>TOXICITY - SINGLE<br/>EXPOSURE</b>   | NO DATA AVAILABLE   |
| <b>SPECIFIC TARGET ORGAN<br/>TOXICITY - REPEATED<br/>EXPOSURE</b> | NO DATA AVAILABLE   |
| <b>ASPIRATION HAZARD</b>  | NO DATA AVAILABLE   |

**ADDITIONAL  
INFORMATION**

RTECS: NOT AVAILABLE

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

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**SECTION 12. ECOLOGICAL INFORMATION**

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|   |                   |
|---|-------------------|
| <b>TOXICITY</b>                               | NO DATA AVAILABLE |
| <b>PERSISTENCE AND<br/>DEGRADABILITY</b>      | NO DATA AVAILABLE |
| <b>BIOACCUMULATIVE<br/>POTENTIAL</b>          | NO DATA AVAILABLE |
| <b>MOBILITY IN SOIL</b>                       | NO DATA AVAILABLE |
| <b>RESULTS OF PBT AND VPVB<br/>ASSESSMENT</b> | NO DATA AVAILABLE |
| <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>                    | OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. |
| <b>CONTAMINATED<br/>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 SOLID, ORGANIC, N.O.S (3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride)  
UN NUMBER: 1325  
CLASS: 4.1  
PACKING GROUP: III

**IMDG**

PROPER SHIPPING NAME: FLAMMABLE SOLID, ORGANIC, N.O.S (3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride)  
UN NUMBER: 1325  
CLASS: 4.1  
PACKING GROUP: III  
EMS-NO: F-A, S-G

**IATA**

PROPER SHIPPING NAME: FLAMMABLE SOLID, ORGANIC, N.O.S (3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride)  
UN NUMBER: 1325  
CLASS: 4.1  
PACKING GROUP: III

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**SECTION 15. REGULATORY INFORMATION**

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**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.

**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 |
|---|---------------|
| 3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride |               |

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

| CAS-NO.   | REVISION DATE |
|---|---------------|
| 3-(4-Nitrophenyl)-5-methyl-2-phenyltetrazolium chloride |               |

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**  
H228 FLAMMABLE SOLID.

MSDS LEGEND

|        |   |
|--------|---|
| MW:    | MOLECULAR WEIGHT  |
| MF:    | MOLECULAR FORMULA   |
| VOC:   | VOLATILE ORGANIC COMPOUNDS                                  |
| ACGIH: | AMERICAN CONFERENCE OF GOVERNMENTAL<br>INDUSTRIAL HYGINISTS |
| CAS:   | CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER                   |
| OSHA:  | OCCUPATIONAL SAFETY AND HEALTH<br>ADMINISTRATION            |
| PEL:   | PERMISSIBLE EXPOSURE LIMIT (OSHA)                           |
| TLV:   | THRESHOLD LIMIT VALUE (ACGIH)                               |

IMPORTANT:

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