

## Safety Data Sheet

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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Product Name: Discharge Agent  
General Use: May be used for dye discharge printing on textile  
Product Description: Reducing agent for water based ink  
SDS Number: US-047-MICI

#### MANUFACTURER/SUPPLIER

Company Name: Matsui International Co., Inc.  
Address: 1501 West 178th Street, Gardena, CA 90248, U.S.A.  
Telephone No.: (310) 767-7812

EMERGENCY TELEPHONE NUMBER: (310) 767-7812

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### 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION

##### Health hazard:

|                      |             |
|----------------------|-------------|
| Acute oral toxicity: | Category 4  |
| Eye irritation:      | Category 2A |
| Aquatic acute:       | Category 2  |

Signal word: Warning.

##### Hazard statement :

Harmful if swallowed.  
Causes serious eye irritation.  
Toxic to aquatic life. Symbol:



##### Precautionary statements:

###### Prevention:

Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.

###### Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Do NOT induce vomiting.

###### Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

###### Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulation.

###### Other Hazards:

Exposure to high concentration of vapor may cause nausea, headache and dizziness.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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| No | Component(s)                  | CAS #      | Approx. % |
|----|-------------------------------|------------|-----------|
| A  | Zinc formaldehyde sulfoxylate | 24887-06-7 | >95       |
| B  | Zinc sulfite                  | 13597-44-9 | <3.5      |

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### 4. FIRST AID MEASURES

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#### INHALATION:

If inhale a large quantity, remove to fresh air and lie quiet. Seek medical attention as needed.

**EYE:** Immediately flush eyes with water for at least 15 minutes. Seek medical attention as needed.

**SKIN:** Wash with mild soap and water for at least 15 minutes. Seek medical attention as needed.

#### INGESTION:

Rinse mouth thoroughly with water. Do not induce vomiting. Give several glasses of water or milk to drink immediately. Seek medical attention as needed.

#### PROTECTION TO FIRST-AIDERS:

Wear personal protective clothing and equipment.

#### NOTE TO PHYSICIAN:

Treat symptomatically.

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### 5. FIRE FIGHTING MEASURES

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#### EXTINGUISHING MEDIA:

Use water, foam, dry chemical.

(Carbon dioxide is unsuitable as the chemical has its own oxygen supply).

#### SPECIAL HAZZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

May generate heat when wet. Combustion products may include but are not limited: carbon monoxide, carbon dioxide, sulfur dioxide, some metallic oxide, formaldehyde fumes. This product may contain fine dusts capable of forming explosive dust/air mixtures.

#### FIRE FIGHTING INSTRUCTIONS:

In case of fire, wear respirator.

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### 6. ACCIDENTAL RELEASE MEASURES

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#### LAND SPILL:

Wear suitable personal protective equipment as needed. Isolate area; use appropriate personal protection equipment; keep unnecessary and unprotected personnel from entering the involved area. Mix waste material together with dust-binding material and collect into appropriate disposal container; dispose of in accordance with applicable local and federal environmental control laws and regulations.

#### WATER SPILL:

Wear suitable personal protective equipment as needed. Avoid releasing spilled material into rivers and/or lakes. If material is released to public water, advise local authority.

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### 7. HANDLING AND STORAGE

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#### HANDLING:

Avoid contact with eyes, skin and clothing; wash thoroughly after handling. Use with adequate ventilation; avoid dust formation. Avoid breathing dust. Do not expose to excessive heat. Handle in accordance with good industrial hygiene and safe work practices.

#### STORAGE:

Store in a cool, dry place with adequate ventilation. Keep container tightly closed; protect from moisture. Recommended storage temperature: 15-35°C (59-95°F).

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### EXPOSURE LIMIT VALUES:

Not established; recommend treating as a nuisance dust: particulates not otherwise regulated;  
OSHA PEL: 15 mg/m<sub>3</sub> (total dust)  
5 mg/m<sub>3</sub> (respirable fraction).

### EXPOSURE CONTROLS:

#### Occupational Exposure Controls

##### Engineering Controls:

Local exhaust ventilation or general ventilation is recommended during indoor operation.

##### Personal Protection

##### Respiratory Protection:

Respiratory protection is not required under normal conditions of use. Where protection from nuisance levels of dusts is desired a NIOSH approved dust mask may be used, e.g., particle filter with medium efficiency for solid particles (EN143 or 149, Type P2 or FFP2). Respirator use should follow the guidelines of an established respiratory protection program in compliance with 29CFR1910.134 (also see Canadian CSA Standard Z94.4-93, European Standard CR 529).

If hazard assessment indicates that processing temperatures may cause the release of formaldehyde, wear respiratory protection suitable for formaldehyde exposure.

##### Hand Protection:

Wear nitrile rubber or other suitable protective gloves; refer to European Standard EN374. Some options include: nitrile rubber (0.4 mm coating thickness); butyl rubber (0.7 mm coating thickness). Gloves selected should have a breakthrough rating of at least >30 minutes.

##### Eye Protection:

Wear safety glasses with side shields or chemical safety goggles. Refer to OSHA 29CFR1910.133 and European Standard EN166.

##### Skin Protection:

Wear suitable protective clothing as necessary to minimize skin contact. Refer to OSHA 29CFR1910.132 and 1910.136 for OSHA approved standards on protective clothing and footwear.

##### Environmental Exposure Controls:

Emissions from process and ventilation equipment should be monitored to ensure compliance with all applicable environmental control regulations

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|  |  |
|--|--|
| Appearance:                              | white powder.  |
| Odor:                                    | Slight, characteristic   |
| pH:                                      | 3.5 - 5.2 (10% aqueous solution)                                     |
| Boiling Point:                           | Not available.   |
| Melting Point:                           | ~150°C (~302°F) (decomposes)   |
| Decomposition Temperature:               | ~150°C (~302°F)  |
| Flash Point:                             | Not available.   |
| Auto-Ignition Temperature:               | Not available.   |
| Flammability:                            | Not flammable; combustible if involved in a fire; not self-igniting. |
| Explosive Properties:                    | Not available.   |
| Oxidizing Properties:                    | Not available.   |
| Vapor Pressure:                          | Not available.   |
| Specific Gravity (water = 1):            | 2.27   |
| Solubility:                              | 500 g/l @ 20°C   |
| Partition Coefficient (n-octanol/water): | Not available.   |
| Viscosity:                               | Not available.   |
| Vapor Density:                           | Not available.   |

Evaporation Rate: Not available.

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## 10. STABILITY AND REACTIVITY

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**CONDITIONS TO AVOID:** Avoid exposure to air or moisture over prolonged periods. Avoid dust generation. Avoid exposure to temperatures in excess of 50°C (122°F).

**STABILITY:** Stable under recommended storage conditions (unstable in bulk liquid form >70°C).

**MATERIALS TO AVOID:** Strong oxidizing agents, acids.

**HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:** Combustion products include but are not limited to carbon monoxide, carbon dioxide, sulfur dioxide, metallic oxides, possible release of formaldehyde.

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## 11. TOXICOLOGICAL INFORMATION

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**Acute Toxicity:** LD50(rat): 1280 mg/kg.

**Eye Irritation:** Not available.

**Skin Irritation:** Not available.

**Sensitization:** Not available.

**Repeated Dose Toxicity:** Not available.

**Chronic Toxicity:** Not available.

**Mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Reproductive and Developmental Toxicity:** Not available.

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## 12. ECOLOGICAL INFORMATION

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### ECOTOXICITY:

Acute/prolonged toxicity to fish:

No data available

Acute/prolonged toxicity to aquatic invertebrates:

EC50 (Daphnia magna)(24-hr): 12 mg/l

Acute/prolonged toxicity to aquatic plants:

EC50 (Algae)(72-hr): >100 mg/l

Toxicity to bacteria, to soil dwelling organisms and to terrestrial plants:

Inhibition of the degradation activity of activated sludge is not anticipated during the correct introduction of appropriate low concentrations into biological treatment systems.

DEV-L2: >100 mg/l

COD = 405 mg/g

Chronic toxicity to aquatic organisms:

No data available.

General effect:

Toxic to aquatic life.

### MOBILITY:

Not available.

### PERSISTENCE AND BIODEGRADABILITY:

Inherently biodegradable (>70% elimination at 28 days).

**BIOACCUMULATIVE POTENTIAL:**

Not available.

**OTHER ADVERSE EFFECTS:**

Not available.

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**13. DISPOSAL INFORMATION**

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Comply with all federal, state and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

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**14. TRANSPORT INFORMATION**

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**US DEPARTMENT OF TRANSPORTATION (DOT)**

|   |                 |
|---|-----------------|
| Hazardous Materials:                                      | No.             |
| Hazardous Materials Description and Proper Shipping Name: | Not applicable. |
| Hazard Class or Division:                                 | Not applicable. |
| Identification Number:                                    | Not applicable. |
| Packing Group:  | Not applicable. |
| Label(s) Required:  | Not applicable. |

**SEA TRANSPORT**

**IMDG**

|                       |                 |
|-----------------------|-----------------|
| Class:                | Not applicable. |
| Packing Group (PG):   | Not applicable. |
| UN Number:            | Not applicable. |
| Proper Shipping Name: | Not applicable. |
| Marine Pollutant:     | Not applicable. |

**AIR TRANSPORT**

**ICAO/IATA**

|                       |                 |
|-----------------------|-----------------|
| Class:                | Not applicable. |
| Packing Group (PG):   | Not applicable. |
| UN Number:            | Not applicable. |
| Proper Shipping Name: | Not applicable. |

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**15. REGULATORY INFORMATION**

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**CERCLA REPORTABLE QUANTITY (40 CFR 117, 302):**

No Reportable Quantity components.

**SARA TITLE III**

Section 302 (40 CFR 355) – Extremely hazardous substance:  
Not applicable.

Section 311/312 (40 CFR 370) – Hazard categories:  
Acute health hazard

Section 313 (40 CFR 372) – Toxic chemical:

Product contains approx. 100% zinc compound. (23% zinc calculated as Zn).

**HMIS Ratings**

|               |   |
|---------------|---|
| Health:       | 1 |
| Flammability: | 1 |
| Reactivity:   | 0 |

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

Please refer to any other federal, state and local regulations.

For specific questions please call to Matsui International Co., Inc. USA 3107677812.

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16. OTHER

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ABBREVIATIONS

OSHA: The Occupational Safety and Health Administration  
NTP: National Toxicology Program  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists, Inc.  
IMDG: International Maritime Dangerous Goods  
ICAO: International Civil Aviation Organization  
IATA: International Air Transport Association  
TSCA: Toxic Substances Control Act  
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980  
SARA: Superfund Amendments and Reauthorization Act of 1986  
CONEG: the Coalition of Northeastern Governors  
ENCS: Existing and New Chemical Substances

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