

SAFETY DATA SHEET

Rev. Date: 5-11-2015 Prepared according to OSHA Hazard Communication Standard Rule - 29 CFR 1910.1200 and the Canadian Hazardous Products Act and the Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations.

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance or mixture:

Product name: Diazo Sensitizer

Common Name: 4-Diazodiphenylamine / formaldehyde condensate hydrogen sulfate zinc chloride complex.

1.2 Use of the substance/mixture:

Use of the Substance/Preparation: Photosensitizer for printing plates and silkscreens.

1.3 Company/undertaking identification:

MRI International

PO Box 42

Swartswood, NJ 07877 U.S.A.

Emergency Call: 973-383-3645 FAX:973-383-6672

E-mail:INFO@MRI-DIAZO.COM



SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS (Globally Harmonized System of Classification and Labelling of Chemicals)

This product is not regulated according to the criteria of the United States, Occupational Safety and Health Administration (OSHA), Hazard Communication, 29 Code of Federal Regulation 1910.1200.

2.2 Label elements:

GHS (Globally Harmonized System of Classification and Labelling of Chemicals)

This product is not regulated according to the criteria of the United States, Occupational Safety and Health Administration (OSHA), Hazard Communication, 29 Code of Federal Regulation 1910.1200.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance related information:

CAS-No.: 68988-17-0

3.2 Hazard Ingredients:

Hazardous components

This product does not contain any hazardous ingredients as defined by relevant legislation.

Components with a community workplace exposure limit

This product does not contain components with a community exposure limit.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures:

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact : In case of skin contact, wash the skin with copious quantities of soap and water. If redness, itching or burning sensation develops, consult medical personnel.

Ingestion : Rinse mouth with plenty of water. Seek medical advice.

Inhalation : If inhaled, move person to fresh air. If cough or other respiratory symptoms develop, consult medical personnel.

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4.2 Most important symptoms and effects: May be irritating to eyes, respiratory system and skin.

4.3 Indication of immediate medical attention and special treatment needed: Seek medical advice if you feel unwell.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Water fog, carbon dioxide, dry chemical powder or appropriate foam.

5.2 Special hazards arising from the substance or mixture:

Hazardous decomposition products / combustion products: Carbon dioxide, carbon monoxide, nitrogen oxides and sulfur oxides.

5.3 Advice for fire-fighters:

Special protective equipment for fire-fighters : Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Personal precautions : Avoid formation of dust. See section 8: Exposure controls / personal protection.

6.2 Environmental precautions:

Environmental precautions : Do not allow spilled material or wash water to enter sewers, surface waters, or ground water systems.

6.3 Methods and material for containment and cleaning up:

Methods for cleaning up : Sweep up, place in a heavy plastic bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash the spill site with copious amounts of water after material pick-up is completed. Wash water must be disposed of in accordance with local discharge regulations. Comply with all federal, state and local spill regulations.

6.4 Reference to other sections:

For waste disposal see section 13.
For personal protection see section 8.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Hygiene measures : Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Advice on protection against fire and explosion : Dust can form an explosive mixture in air. Keep away from heat and sources of ignition.

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7.2 Conditions for safe storage:

Requirements for storage areas and containers : Keep container tightly closed. Keep in a dry, cool place. Protect from direct sunlight.

Further information on storage conditions : Keep locked up or in an area accessible only to qualified or authorized persons.

7.3 Specific end use: Photosensitizer for printing plates and silkscreens.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters: We are not aware of control parameters for this substance.

8.1.1 Components with occupational exposure limits resp. biological occupational exposure limits requiring monitoring: We are not aware of exposure limits for this substance.

8.1.1.1 Occupational exposure limits:

Air limit values (US)

We are not aware of any national exposure limit.

Air limit values (CA)

We are not aware of any national exposure limit.

Biological limit values (US)

We are not aware of any national exposure limit.

Biological limit values (CA)

We are not aware of any national exposure limit.

8.1.1.2 Additional exposure limits under the conditions of use: None known.

8.2 Exposure controls:

Occupational exposure controls:

- **Instruction measures to prevent exposure:**

Minimize exposure in accordance with good chemical manufacturing hygiene practices. Avoid breathing dust. Avoid contact with the eyes, skin and clothing.

Employees should wash their hands and face before eating, drinking, or using tobacco products. Keep away from foodstuffs, drinks and tobacco.

- **Technical measures to prevent exposure:**

Adequate ventilation is required. Safety shower and eyewash station should be available in the work area.

- **Personal measures to prevent exposure:**

Respiratory protection : Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR1910.134 or Canada CSA Standard Z94.4-02. Employees should wear dust mask.

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Hand protection : Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials: butyl rubber (thickness \geq 0.36 mm, breakthrough time > 480 min), nitrile rubber (thickness \geq 0.38 mm, breakthrough time > 480 min) or neoprene (thickness \geq 0.65 mm, breakthrough time > 240 min). For intermittent splash protection corresponding gloves with breakthrough times > 60 min can be used. Avoid gloves made of: natural latex.

Eye protection : Safety goggles. EN 166.

Personal protective equipment : Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic physical and chemical properties:

9.1.1 Appearance:

State of matter : solid
Form : Powder form.
Color : Yellowish
Odor : Odorless.
Odor threshold : No data available

9.1.2 Important health, safety and environmental information:

pH : No data available
Melting point/range : No data available
Boiling point/range : No data available
Flash point : > 93.33 °C
Not combustible.
Auto ignition temperature : No data available
Vapor pressure : Not established.
Relative vapor density : No data available
Density : 0.6 g/cm³
Water solubility : No data available
Partition coefficient (n-octanol/water) : No data available

9.1.2 Important health, safety and environmental information: cont'd

Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Lower explosion limit : No data available
Upper explosion limit : No data available
Evaporation rate : No data available

9.2 Other information:

VOC content : 0.0 g/l
VOC content excluding water

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SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

Reactivity : Reacts vigorously with oxidizing agents.

10.2 Chemical stability:

Stability : The product is stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

Conditions to avoid : Exposure to Heat and light.

10.5 Materials to avoid:

Materials to avoid : Avoid contact with strong oxidizing agents. Avoid contact with strong alkalis.

10.6 Hazardous decomposition products:

Hazardous decomposition : Carbon monoxide (CO), Carbon dioxide (CO₂). Sulphur dioxide and products nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Data not relevant for classification purposes.

Toxicokinetics, metabolism and distribution:

No data available.

Acute effects (toxicity tests):

- Acute Toxicity

	Effect dose	Species	Value	Method
Acute oral toxicity	LD50	rat	>= 5,000 mg/kg	Literature.

Based on available data, the classification criteria are not met.

Acute dermal toxicity No data available

Acute inhalation toxicity No data available

- Specific target organ toxicity (STOT):**

Specific effects	Affected organs
No data available	No data available

- Irritant and corrosive effects:**

	Exposure time	Species	Evaluation	Method
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Primary irritation to the skin No data available

Irritation to eyes Resin particles, like other inert materials, are mechanically irritating to eyes.

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- **Irritation to the respiratory tract:**

No data available

- **Sensitisation:**

<u>Species</u>	<u>Evaluation</u>	<u>Method</u>
	No data available	

- **Aspiration hazard:**

No data available

Sub-acute, sub-chronic and chronic toxicity

- **Repeated dose toxicity:**

No data available

- **Specific target organ toxicity (STOT):**

No information available.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

- Carcinogenicity

Based on available data, the classification criteria are not met.

- Mutagenicity

No data available

- Genetic toxicity in vitro

No data available

- Genetic toxicity in vivo

No data available

- Teratogenicity

No data available

- Toxicity to reproduction

No data available

- **Summarized evaluation of the CMR properties:**

Carcinogenicity	: No data available
Mutagenicity	: No data available
Teratogenicity	: No data available
Toxicity to reproduction	: No data available

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

<u>Effect dose</u>	<u>Exposure time</u>	<u>Species</u>	<u>Value</u>
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Toxicity to fish	No data available		
Toxicity to daphnia	No data available		
Toxicity to algae	No data available		
Toxicity to bacteria	No data available		

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12.2 Persistence and degradability:

Adsorbed organic bound halogens (AOX)

No data available

Biodegradation

No data available

Biochemical Oxygen Demand (BOD)

No data available

12.3 Bioaccumulative potential:

Partition coefficient (n-octanol/water)

No data available

Bioconcentration factor (BCF)

No data available

12.4 Mobility in soil:

No information available.

Henry's constant

No information available.

Transport between environmental compartments

No data available

12.5 Results of PBT and vPvB assessment:

No data available

12.6 Other adverse effects:

No information on ecology is available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Empty containers.

Recondition or dispose of empty container in accordance with governmental regulations.

US. RCRA Hazardous Waste Classification (40 CFR 261)

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

SECTION 14. TRANSPORT INFORMATION

Not regulated according to IMO/IMDG.

Not regulated according to ICAO/IATA aircraft only.

Not regulated according to ICAO/IATA passenger and cargo aircraft.

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Not regulated according to US Department of Transportation (DOT) 49 CFR

Not regulated according to Transport of Dangerous Goods (TDG)

SECTION 15. REGULATORY INFORMATION

US. Toxic Substances Control Act (TSCA)

All of the components of this product are listed on the TSCA Inventory.

US. OSHA Classification

This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

US. SARA 311/312 Hazard Categories

No SARA Hazards

US. California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

State Right-to-Know Information

The following chemicals are specifically listed by individual states. Other product specific health and safety data in other sections of the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

	CAS-No.	Concentration [%]
• Benzenediazonium,4-(phenylamino)-sulfate(1:1), polymer with formaldehyde, zinc chloride complexes (Chemical abstracts name).	68988-17-0	>= 80.0 - <= 100.0

US. Massachusetts, New Jersey, Pennsylvania or Rhode Island Right to Know Substance Lists : See Section 2.

Canadian WHMIS Classification

Not regulated.

Canadian Environmental Protection Act (CEPA)

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

- Benzenediazonium,4-(phenylamino)-sulfate(1:1), polymer with formaldehyde, zinc chloride complexes.

SECTION 16. OTHER INFORMATION

To the best of our knowledge the chemical, physical and toxicological properties of this material have not been thoroughly investigated. The information contained herein is based on the date believed to be reliable and is presented in good faith. It is, however, furnished without warranty or guarantee of any kind, expressed or implied, and MRI International disclaims any liability incurred from the use or reliance upon the same.

The data on this SDS relates only to the specific material designated herein. MRI International assumes no legal responsibility for use or reliance upon these data. This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard Rule - 29 CFR 1910.1200 and the Canadian Hazardous Products Act.