



# Material Safety Data Sheet

## Section 1. Product and Company Identification

<b>Product Name</b>	Schiff Reagent	<b>Product Code</b>	2818
<b>Manufacturer</b>	EMD Chemicals Inc. P.O. Box 70 480 Democrat Road Gibbstown, NJ 08027 Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.	<b>Effective Date</b>	9/26/2003
		<b>Print Date</b>	5/3/2004

### For More Information Call

856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM

### In Case of Emergency Call

800-424-9300 CHEMTREC (USA)  
613-996-6666 CANUTEC (Canada)  
24 Hours/Day: 7 Days/Week

**Synonym** None.

**Material Uses** Laboratory Reagent

**Chemical Family** Dye Solution

## Section 2. Composition and Information on Ingredients

Component	CAS #	% by Weight
Nuchar-Carbon	7440-44-0	<1
Sulfur Dioxide	7446-09-5	<1
Basic Fuchsin	569-61-9	<1
Water	7732-18-5	>97

## Section 3. Hazards Identification

**Physical State and Appearance** Liquid.

**Emergency Overview** CAUTION !  
MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.  
CAUSES EYE AND SKIN IRRITATION.  
CANCER HAZARD  
CONTAINS MATERIAL WHICH CAN CAUSE CANCER

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

**Routes of Entry** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

### Potential Acute Health Effects

**Eyes** Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.

**Skin** Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator).

**Inhalation** May be hazardous in case of inhalation.

**Ingestion** May be hazardous in case of ingestion.

Continued on Next Page

**Potential Chronic Health Effects**

**Carcinogenic Effects** Classified A1 (Confirmed for human.) by ACGIH [Basic Fuchsin]. Classified 2B (Possible for human.) by IARC [Basic Fuchsin].

Additional information See Toxicological Information (section 11)

**Medical Conditions****Aggravated by****Overexposure:**

Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

**Section 4. First Aid Measures****Eye Contact**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

**Skin Contact**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

**Inhalation**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Section 5. Fire Fighting Measures****Flammability of the Product**

Non-flammable.

**Auto-ignition Temperature**

Not applicable.

**Flash Points**

Not applicable.

**Flammable Limits**

Not applicable.

**Products of Combustion**

Not applicable.

**Fire Hazards in Presence of Various Substances**

Not applicable.

**Explosion Hazards in Presence of Various Substances**

Risks of explosion of the product in presence of static discharge: No.

Risks of explosion of the product in presence of mechanical impact: No.

**Fire Fighting Media and Instructions**

Not applicable.

**Protective Clothing (Fire)**

Wear suitable protective clothing.

**Special Remarks on Fire Hazards**

Not available.

**Special Remarks on Explosion Hazards**

Not available.

**Section 6. Accidental Release Measures**

<b>Small Spill and Leak</b>	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
<b>Large Spill and Leak</b>	Absorb with an inert material and put the spilled material in an appropriate waste disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
<b>Spill Kit Information</b>	No specific spill kit required for this product.

**Section 7. Handling and Storage**

<b>Handling</b>	Avoid contact with eyes, skin and clothing. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing vapors or spray mists. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
<b>Storage</b>	Keep container tightly closed.

**Section 8. Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
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**Personal Protection**

**Eyes** Splash goggles.

**Body** Lab coat.

**Respiratory** Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands** Gloves.

**Feet** Not applicable.

**Protective Clothing (Pictograms)****Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Product Name****Exposure Limits**

Nuchar-Carbon

**Tyterveyslaitos (Finland, 1998).**TWA: 5 mg/m<sup>3</sup> 8 hour(s).**National Authority for Occupational Safety/Health (Ireland, 1999).**OEL: 10 mg/m<sup>3</sup> 8 hour(s).**EH40-OES (United Kingdom (UK), 1997).**TWA: 10 mg/m<sup>3</sup> 8 hour(s).

Sulfur Dioxide

**ACGIH (United States, 1996).**STEL: 13 mg/m<sup>3</sup> 15 minute(s).

STEL: 5 ppm 15 minute(s).

TWA: 5.2 mg/m<sup>3</sup> 8 hour(s).

TWA: 2 ppm 8 hour(s).

**NIOSH REL (United States, 1994).**STEL: 13 mg/m<sup>3</sup> 15 minute(s).

STEL: 5 ppm 15 minute(s).

TWA: 5 mg/m<sup>3</sup> 10 hour(s).

TWA: 2 ppm 10 hour(s).

**OSHA Final Rule (United States, 1989).**STEL: 10 mg/m<sup>3</sup> 15 minute(s).

	STEL: 5 ppm 15 minute(s).
	TWA: 5 mg/m <sup>3</sup> 8 hour(s).
	TWA: 2 ppm 8 hour(s).
Basic Fuchsin	Not available.
Water	Not available.

### Section 9. Physical and Chemical Properties

<b>Odor</b>	Rotten eggs.
<b>Color</b>	Clear.
<b>Physical State and Appearance</b>	Liquid.
<b>Molecular Weight</b>	Not applicable.
<b>Molecular Formula</b>	Not applicable.
<b>pH</b>	Not available.
<b>Boiling/Condensation Point</b>	The lowest known value is 99.9°C (211.8°F) (Water).
<b>Melting/Freezing Point</b>	May start to solidify at -0.1°C (31.8°F) based on data for: Water.
<b>Specific Gravity</b>	1 (Water = 1)
<b>Vapor Pressure</b>	Not available.
<b>Vapor Density</b>	Not available.
<b>Odor Threshold</b>	Not available.
<b>Evaporation Rate</b>	0.36 (Water) compared to(n-Butyl Acetate =1)
<b>LogK<sub>ow</sub></b>	Not available.
<b>Solubility</b>	Soluble in water.

### Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Not available.
<b>Incompatibility with Various Substances</b>	Slightly reactive to reactive with oxidizing agents.
<b>Rem/Incompatibility</b>	Not available.
<b>Hazardous Decomposition Products</b>	CO <sub>x</sub> , SO <sub>x</sub>
<b>Hazardous Polymerization</b>	Will not occur.

### Section 11. Toxicological Information

<b>RTECS Number:</b>	Nuchar-Carbon	FF5250100
	Sulfur Dioxide	WS4550000
	Basic Fuchsin	CX9850100
	Water	ZC0110000
<b>Toxicity</b>	LD <sub>50</sub> : Not available.	
	LC <sub>50</sub> : Not available.	

<b>Chronic Effects on Humans</b>	<b>CARCINOGENIC EFFECTS:</b> Classified A1 (Confirmed for human.) by ACGIH [Basic Fuchsin]. Classified 2B (Possible for human.) by IARC [Basic Fuchsin]. Contains material which causes damage to the following organs: mucous membranes.
<b>Acute Effects on Humans</b>	Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching. Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of skin contact (permeator). May be hazardous in case of inhalation. May be hazardous in case of ingestion.
<b>Synergetic Products (Toxicologically)</b>	Not available.
<b>Irritancy</b>	<u>Draize Test:</u> Not available.
<b>Sensitization</b>	Not available.
<b>Carcinogenic Effects</b>	Classified A1 (Confirmed for human.) by ACGIH [Basic Fuchsin]. Classified 2B (Possible for human.) by IARC [Basic Fuchsin].
<b>Toxicity to Reproductive System</b>	Not available.
<b>Teratogenic Effects</b>	Not available.
<b>Mutagenic Effects</b>	Not available.

### Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Toxicity of the Products of Biodegradation</b>	The products of degradation are as toxic as the product itself.

### Section 13. Disposal Considerations

<b>EPA Waste Number</b>	Not available.
<b>Treatment</b>	Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

### Section 14. Transport Information

<b>DOT Classification</b>	Not available.
<b>TDG Classification</b>	Not available.
<b>IMO/IMDG Classification</b>	Not available.
<b>ICAO/IATA Classification</b>	Not available.

**Section 15. Regulatory Information**

**U.S. Federal Regulations** TSCA 8(b) inventory: Nuchar-Carbon; Sulfur Dioxide; Basic Fuchsin; Water  
 SARA 302/304/311/312 extremely hazardous substances: Sulfur Dioxide  
 SARA 302/304 emergency planning and notification: Sulfur Dioxide  
 SARA 302/304/311/312 hazardous chemicals: Nuchar-Carbon; Sulfur Dioxide; Basic Fuchsin  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Nuchar-Carbon: Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Sulfur Dioxide: Sudden Release of Pressure, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; Basic Fuchsin: Delayed (Chronic) Health Hazard  
 SARA 313 toxic chemical notification and release reporting: No products were found.  
 Clean Water Act (CWA) 307: No products were found.  
 Clean Water Act (CWA) 311: No products were found.  
 Clean air act (CAA) 112 accidental release prevention: Sulfur Dioxide  
 Clean air act (CAA) 112 regulated flammable substances: No products were found.  
 Clean air act (CAA) 112 regulated toxic substances: Sulfur Dioxide

**WHMIS (Canada)** Class D-2A: Material causing other toxic effects (VERY TOXIC).  
 Class D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: Nuchar-Carbon; Sulfur Dioxide; Basic Fuchsin; Water

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

**International Regulations**

**EINECS**

Nuchar-Carbon	231-153-3
Sulfur Dioxide	231-195-2
Basic Fuchsin	209-321-2
Water	231-791-2

**DSCL (EEC)** This product is not classified according to the EU regulations.

**International Lists** Australia (NICNAS): Nuchar-Carbon; Sulfur Dioxide; Water

Japan (MITI): Sulfur Dioxide; Water

Korea (TCCL): Nuchar-Carbon; Sulfur Dioxide; Water

Philippines (RA6969): Nuchar-Carbon; Sulfur Dioxide; Basic Fuchsin; Water

China: No products were found.

**State Regulations**

Pennsylvania RTK: Sulfur Dioxide: (environmental hazard, generic environmental hazard)

Massachusetts RTK: Sulfur Dioxide; Basic Fuchsin

New Jersey: Schiff Reagent

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Basic Fuchsin

California prop. 65 (no significant risk level): Basic Fuchsin

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Basic Fuchsin

**Section 16. Other Information**

**National Fire  
 Protection  
 Association  
 (U.S.A.)**



**Continued on Next Page**

Changed Since Last  
Revision

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