

**Material Safety Data Sheet**

Version 3.0  
Revision Date 05/11/2009  
Print Date 03/22/2011

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Pigment Red 53:1 (Brilliant Scarlet C.I. 15585:1)

Product Number : R325007  
Brand : Aldrich

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +18003255832  
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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]

Formula : C<sub>17</sub>H<sub>12</sub>ClN<sub>2</sub>O<sub>4</sub>S · 1/2Ba

Molecular Weight : 888.95 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]</b>			
5160-02-1	225-935-3	056-002-00-7	-

**3. HAZARDS IDENTIFICATION****Emergency Overview****OSHA Hazards**

No known OSHA hazards

**HMIS Classification**

Health Hazard: 0  
Flammability: 0  
Physical hazards: 0

**NFPA Rating**

Health Hazard: 0  
Fire: 0  
Reactivity Hazard: 0

**Potential Health Effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.  
**Skin** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.

**Ingestion**

May be harmful if swallowed.

**4. FIRST AID MEASURES****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

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

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point no data available

Ignition temperature no data available

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

**Environmental precautions**

Do not let product enter drains.

**Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**

Keep container tightly closed in a dry and well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Update	Basis
Barium bis[2-chloro-5-[(2-hydroxy-1-	5160-02-1	TWA	0.5 mg/m3	1993-06-30	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air

naphthyl)azo]toluene-4-sulphonate]					Contaminants
		TWA	0.5 mg/m3	1989-03-01	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.5 mg/m3	1996-05-18	USA. ACGIH Threshold Limit Values (TLV)
Remarks	<p>Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.</p> <p>1996 Adoption</p> <p>Refers to Appendix A -- Carcinogens.</p>				

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

For prolonged or repeated contact use protective gloves.

#### Eye protection

Safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form solid

### Safety data

pH no data available

Melting point 343 - 345 °C (649 - 653 °F)

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Density 1.660 g/cm3

Water solubility no data available

Partition coefficient: log Pow: 3.236

n-octanol/water

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride gas, Barium oxide

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### Irritation and corrosion

no data available

### Sensitisation

no data available

### Chronic exposure

Carcinogenicity - rat - Oral

Tumorigenic: Carcinogenic by RTECS criteria. Liver: Tumors. Blood: Tumors.

Carcinogenicity - rat - Oral

Tumorigenic: Neoplastic by RTECS criteria. Blood: Tumors.

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate])

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.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.

### Additional Information

RTECS: DB5500000

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

**Ecotoxicity effects**

no data available

**Further information on ecology**

no data available

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**13. DISPOSAL CONSIDERATIONS**

**Product**

Observe all federal, state, and local environmental regulations.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION**

**OSHA Hazards**

No known OSHA hazards

**DSL Status**

All components of this product are on the Canadian DSL list.

**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**

	CAS-No.	Revision Date
Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]	5160-02-1	1987-01-01

**SARA 311/312 Hazards**

No SARA Hazards

**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
Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]	5160-02-1	1987-01-01

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]	5160-02-1	1987-01-01

**California Prop. 65 Components**

	CAS-No.	Revision Date
WARNING! This product contains a chemical known in the State of California to cause cancer. Barium bis[2-chloro-5-[(2-hydroxy-1-naphthyl)azo]toluene-4-sulphonate]	5160-02-1	1992-11-09

## 16. OTHER INFORMATION

### Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.