

8-30-05



**SIGMA-ALDRICH**

**Material Safety Data Sheet**

Date Printed: 05/24/2005  
Date Updated: 04/07/2004  
Version 1.10

**Section 1 - Product and Company Information**

<b>Product Name</b>	Bradford Reagent	
<b>Product Number</b>	B6916	
<b>Brand</b>	Sigma Chemical	
<b>Company</b>	Sigma-Aldrich	
<b>Street Address</b>	3050 Spruce Street	
<b>City, State, Zip, Country</b>	SAINT LOUIS, MO 63103 US	
<b>Technical Phone:</b>	314 771 5765	
<b>Fax:</b>	800 325 5052	<b>Emergency Phone:</b> 414 273 3850 Ext. 5996

**Section 2 - Composition/Information on Ingredient**

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
BRADFORD REAGENT	None	Yes		

  

<u>Ingredient Name</u>	<u>CAS #</u>	<u>Percent</u>	<u>SARA 313</u>
BRILLIANT BLUE G	None	0.004 %	No
PHOSPHORIC ACID	7664-38-2	10.000 %	Yes
METHANOL	67-56-1	4.000 %	Yes

  

**Formula**  
**Synonyms**

**Section 3 - Hazards Identification**

**Emergency Overview**  
Corrosive.  
Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.  
Target organ(s): Liver. Eyes.

**HMIS Rating**  
Health: 3\*      Flammability: 0      Reactivity: 0

**NFPA Rating**  
Health: 3      Flammability: 0      Reactivity: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

**Section 4 - First Aid Measures**

**Oral Exposure**  
If swallowed, wash out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

**Inhalation Exposure**  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**Dermal Exposure**  
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

**Eye Exposure**  
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Section 5 - Fire Fighting Measures**

**Autoignition Temp:** N/A

**Extinguishing Media**  
**Suitable**  
Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting**  
**Protective Equipment**  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
**Specific Hazard(s)**  
Emits toxic fumes under fire conditions.

**Section 6 - Accidental Release Measures**

**Procedure to be Followed in Case of Leak or Spill**  
Evacuate area.

**Procedure(s) of Personal Precaution(s)**  
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

**Methods for Cleaning Up**  
Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

**Section 7 - Handling and Storage**

**Handling**  
**User Exposure**  
Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

**Storage**  
**Suitable**  
Keep tightly closed. Store at 2-8°C

**Section 8 - Exposure Controls / PPE**

**Engineering Controls**  
Safety shower and eye bath. Use only in a chemical fume hood.

**Personal Protective Equipment**  
**Respiratory**  
Government approved respirator.  
**Hand**  
Compatible chemical-resistant gloves.  
**Eye**  
Chemical safety goggles.

**Other**

Faceshield (8-inch minimum).

**General Hygiene Measures**

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

**Section 9 - Physical/Chemical Properties****Appearance****Physical State**

Clear liquid

**Molecular Weight:** N/A**pH** N/A**BP/BP Range** N/A**MP/MP Range** N/A**Freezing Point** N/A**Vapor Pressure** N/A**Vapor Density** N/A**Saturated Vapor Conc.** N/A**SG/Density** N/A**Bulk Density** N/A**Odor Threshold** N/A**Volatile%** N/A**VOC Content** N/A**Water Content** N/A**Solvent Content** N/A**Evaporation Rate** N/A**Viscosity** N/A**Partition Coefficient** N/A**Decomposition Temp.** N/A**Flash Point °F** N/A**Flash Point °C** N/A**Explosion Limits** N/A**Flammability** N/A**Autoignition Temp** N/A**Solubility** N/A

N/A = not available

**Section 10 - Stability and Reactivity****Stability****Materials to Avoid**

Strong bases, Finely powdered metals.

**Hazardous Decomposition Products****Hazardous Decomposition Products**

Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine.

**Hazardous Polymerization****Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Route of Exposure****Skin Contact**

Causes burns.

**Skin Absorption**

Harmful if absorbed through skin.

**Eye Contact**

Causes burns.

**Inhalation**

Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion**

Harmful if swallowed.

**Target Organ(s) or System(s)**

Liver. Eyes. Blood. Bone marrow. Kidneys. Heart. Central nervous system.

**Signs and Symptoms of Exposure**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. May cause cyanosis (blue-gray coloring of skin and lips caused by lack of oxygen).

**RTECS Number:** N/A**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations****Appropriate Method of Disposal of Substance or Preparation**

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information****DOT****Proper Shipping Name:** Phosphoric acid**UN#:** 1805**Class:** 8**Packing Group:** Packing Group III**Hazard Label:** Corrosive**PIH:** Not PIH**IATA****Proper Shipping Name:** Phosphoric acid, liquid**IATA UN Number:** 1805**Hazard Class:** 8**Packing Group:** III

## Section 15 - Regulatory Information

### EU Additional Classification

**Symbol of Danger:** C

**Indication of Danger**

Corrosive.

**Risk Statements** R: 34 20/21/22 68/20/21/22

Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.

**Safety Statements** S: 26 36/37/39 45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### US Classification and Label Text

**Indication of Danger**

Corrosive.

**Risk Statements**

Causes burns. Harmful by inhalation, in contact with skin and if swallowed. Harmful: possible risk of irreversible effects through inhalation, in contact with skin, and if swallowed.

**Safety Statements**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**US Statements**

Target organ(s): Liver. Eyes.

### United States Regulatory Information

**SARA Listed:** Yes

**Notes:** This product is or contains a component that is subject to SARA313 reporting requirements.

### Canada Regulatory Information

**WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

**DSL:** No

**NDSL:** No

## Section 16 - Other Information

### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Warranty

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 Inc., 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. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.