



**SIGMA-ALDRICH**

## Material Safety Data Sheet

Date Printed: 03/02/2005  
Date Updated: 04/28/2004  
Version 1.40

### Section 1 - Product and Company Information

**Product Name** Protein G-Sepharose<sup>®</sup> #174; 4B Fast Flow, recombinant protein G, in 20% ethanol  
**Product Number** P3296  
**Brand** Sigma Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 314 771 5765  
**Fax:** 800 325 5052  
**Emergency Phone:** 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>
PROTEIN G-SEPHAROSE 4 FAST FLOW	None	None		

  

<u>Ingredient Name</u>	<u>CAS #</u>	<u>Percent</u>	<u>SARA 313</u>
PROTEIN G SEPHAROSE	None		
ETHANOL, 20WT% AQUEOUS SOLUTION	None		

**Formula**  
**Synonyms**

### Section 3 - Hazards Identification

**Emergency Overview**  
Combustible (USA) Flammable (EU). Irritant.  
Irritating to eyes, respiratory system and skin.  
Target organ(s): Nerves. Liver.

The hazards identified with this product are those associated with the solvent(s).

**HMIS Rating**  
Health: 2\* Flammability: 2 Reactivity: 0

**NFPA Rating**  
Health: 2 Flammability: 2 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.

#### 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 contact, immediately wash skin with soap and copious amounts of water.

#### 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

**Flash Point:** 115 °F 46.1 °C

**Autoignition Temp:** N/A

#### Extinguishing Media

##### Suitable

Water spray, 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)

Combustible liquid. 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, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. 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. Keep away from heat and open flame. Do not freeze. Store in a cool dry place. Store at 2-8°C

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

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

#### Personal Protective Equipment

##### Respiratory

Government approved respirator.

##### Hand

Compatible chemical-resistant gloves.

##### Eye

Chemical safety goggles.

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**Safety and Environmental Health**

**Skin-Specific**

Chemical resistant apron.

**General Hygiene Measures**

Wash thoroughly after handling.

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

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 115 °F  
Flash Point °C 46.1 °C  
Explosion Limits N/A

Method: closed cup  
Method: closed cup

Flammability N/A  
Autoignition Temp N/A  
Solubility N/A

N/A = not available

**Section 10 - Stability and Reactivity****Stability****Stable**

Stable.

**Conditions to Avoid**

Protect from moisture.

**Materials to Avoid**

Acids, Acid chlorides, Acid anhydrides, Alkali metals, Ammonia, Oxidizing agents, Peroxides.

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

Carbon monoxide, Carbon dioxide.

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

Will not occur.

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

Causes skin irritation.

**Skin Absorption**

May be harmful if absorbed through the skin.

**Eye Contact**

Causes eye irritation.

**Inhalation**

May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

**Ingestion**

May be harmful if swallowed.

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

Nerves, Liver.

**Signs and Symptoms of Exposure**

Can cause CNS depression. Exposure can cause: Nausea, headache, and vomiting. Narcotic effect. Damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**RECS 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:** Combustible liquid, n.o.s.**UN#:** 1993**Class:** COMBUSTIBLE LIQUID**Packing Group:** Packing Group III**Hazard Label:** None**PIH:** Not PIH**IATA****Non-Hazardous for Air Transport:** Non-hazardous for air transport.**Section 15 - Regulatory Information****EU Additional Classification****Symbol of Danger:** Xi**Indication of Danger**

Irritant.

**Risk Statements****R:** 10 36/37/38

Flammable. Irritating to eyes, respiratory system and skin.

**Safety Statements****S:** 16 26 36

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice. Wear suitable protective clothing.

#### **US Classification and Label Text**

##### **Indication of Danger**

Combustible (USA) Flammable (EU), Irritant.

##### **Risk Statements**

Irritating to eyes, respiratory system and skin.

##### **Safety Statements**

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

##### **US Statements**

Target organ(s): Nerves, Liver.

#### **United States Regulatory Information**

SARA Listed: No

#### **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

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### **Section 16 - Other Information**

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#### **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.

