

## **Section 1 - Product and Company Identification**

### **1.1 Product identifiers**

Product name: **Peptide M/Agarose, Protein G/Agarose, Protein L/Agarose**

Catalog code: gel-pdm-2, gel-pdm-5, gel-agg-2, gel-agg-5, gel-protl-2

CAS number: Not available

### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified use: Laboratory chemicals

Disclaimer: All InvivoGen products are supplied for research and laboratory use only. Not for drug, household or other uses.

### **1.3 Details of the supplier of the safety data sheet**

Company: InvivoGen USA, 10515 Vista Sorrento Parkway  
San Diego, California 92121, USA  
(+1) 888 457 5873

InvivoGen Europe, 5 rue Jean Rodier  
31400 Toulouse, France  
+33 (0) 5 62 71 69 39

InvivoGen Hong Kong, Unit 106, 1F,  
15W Phase 3 Hong Kong Science Park,  
Pak Shek Kok, Hong Kong  
+852 3622 3480

**1.4 Emergency telephone number:** ORFILA (INRS): +33 (0)1 45 42 59 59

## **Section 2 – Hazards Identification**

### **2.1 Classification of substance according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] and GHS**

Flammable liquids (Category 3), H226  
Eye irritation (Category 2A), H319

### **2.2 Label elements according to Regulation (EC) No 1272/2008 [CLP] and GHS**

Pictogram



Signal word Warning

Hazard statement(s)

H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.


P280 Wear protective gloves/eye protection/face protection.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards - none

### **Section 3 – Composition/Information on Ingredient**

#### **3.2 Mixtures**

Synonyms: Peptide M/Agarose, Protein G/Agarose, and Protein L/Agarose are provided as a 50% v/v gel slurry in phosphate buffered saline (PBS) containing 20% v/v ethanol. The hazardous component is listed below.

Component	CAS Number	GHS Classification	Pictogram	Concentration
Ethanol	64-17-5	Flam. Liq. 2; Eye Irrit. 2A; H225, H319		20% (v/v)

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **Section 4 – First Aid Measures**

#### **4.1 Description of first aid measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, remove to fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash skin 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:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **Section 5 – Fire Fighting Measures**

#### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, carbon dioxide, dry chemical powder or appropriate foam.

#### **5.2 Specific hazards arising from the chemical**

No data available

#### **5.3 Special Firefighting Procedures**

Wear self-contained breathing apparatus for firefighting if necessary.

### **Section 6 – Accidental Release Measures**

#### **6.1 Personal precautions, protective equipment and emergency**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal according to local regulations (see section 13).

## 6.4 Reference to other sections

For disposal see section 13.

## Section 7 – Handling and Storage

### 7.1 Precautions for safe handling

Keep away from open flames, hot surfaces, and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Recommended storage temperature: -20 °C.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## Section 8 – Exposure Controls/PPE

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Remarks	The value in mg/m <sup>3</sup> is approximate.		
		STEL	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		PEL	1,000 ppm 1,900 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

### 8.2 Exposure controls

#### Appropriate engineering controls

General industrial hygiene practice.

#### Personal protective equipment

##### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

**Section 9 – Physical/Chemical Properties****9.1 Information on basic physical and chemical properties****Appearance**

Physical state: Liquid

Color: Colorless

**Safety Data**

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/freezing point: -114 °C

Initial boiling point and boiling range: 78 °C

Flash point: 13 °C - closed cup

Evaporation rate: No data available

Flammability: No data available

Upper/lower flammability or explosive limits: Upper explosion limit: 19 %(V) Lower explosion limit: 3.3 %(V)

Vapor pressure: 5.95 kPa at 20 °C

Relative density: 0.7849 g/mL at 25 °C

Solubility in water: Miscible

Partition coefficient (n-octanol/water): log Pow: -0.35 at 24 °C

Autoignition temperature: 365 °C

Decomposition temperature: No data available

Viscosity: No data available

**9.2 Other safety information**

no data available

**Section 10 – Stability and Reactivity**

**10.1 Reactivity:** No data available

**10.2 Chemical stability:** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions:** No data available

**10.4 Conditions to avoid:** No data available

**10.5 Incompatible materials:** No data available

**10.6 Hazardous decomposition products:** No data available

**In case of fire:** See section 5

## **Section 11 – Toxicological Information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity:**

Oral LD50: LD50 Oral – Rat (3-4 months old) - 10,600 mg/kg

LD50 Oral – Rat (10-12 months old) - 7,060 mg/kg

Reference: Wiberg GS. et al., 1970. Increased ethanol toxicity in old rats: changes in LD50, *in vivo* and *in vitro* metabolism, and liver alcohol dehydrogenase activity. Toxicol Appl Pharmacol. 16(3):718-27.

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

#### **Skin corrosion/irritation: Skin - Rabbit**

Result: No skin irritation - 24 h

(OECD Test Guideline 404)

#### **Serious eye damage/irritation: Eyes - Rabbit**

Result: Moderate eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization:** No data available

**Germ cell mutagenicity:** No data available

**Carcinogenicity:** No data available.

**Reproductive toxicity:** No data available.

**Additional information:** No data available

## **Section 12 – Ecological Information**

**12.1 Toxicity:** No data available

**12.2 Persistence and degradability:** No data available

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** No data available

**12.5 Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required or not conducted.

**12.6 Other adverse effects:** No data available

## **Section 13 – Disposal Considerations**

### **13.1 Waste treatment methods**

**Product:** Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.

**Contaminated Packaging:** Dispose of as unused product.

## **Section 14 – Transport Information**

### **14.1 UN number**

ADR/RID: 1170

DOT (US): 1170

IMDG: 1170

IATA: 1170

### **14.2 UN proper shipping name**

Ethanol 20 % solution

### **14.3 Transport hazard class(es)**

ADR/RID: 3

DOT (US): 3

IMDG: 3

IATA: 3

### **14.4 Packaging group**

ADR/RID: III

DOT (US): III

IMDG: III

IATA: III

**14.5 Environmental hazards**

ADR/RID: no      DOT (US): no      IMDG Marine pollutant: no      IATA: no

**14.6 Special precautions for user**

no data available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**Section 15 – Regulatory Information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

no data available

**15.2 Chemical Safety Assessment**

no data available

**Section 16 – Other Information****Full text of H-Statements referred to under sections 2 and 3.**

H225    Highly flammable liquid and vapor.

H226    Flammable liquid and vapour.

H319    Causes serious eye irritation.

The information contained in this SDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). InvivoGen provides this information in good faith and is based on our present knowledge. This SDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.