

# Material Safety Data Sheet

Version GHS 5.1  
Revision date : 1/22/2018

## 1. PRODUCT & COMPANY IDENTIFICATION

**Product Name :** Bradford (Coomassie) Protein Assay Plus Reagent

**Product Cat No :** P7201

**CAS No :**

**Manufacturer/Supplier :** GenDEPOT LLC

PO Box 454

Barker, Tx 77413

Emergency Phone : 866.417.0078

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## 2. HAZARD IDENTIFICATION

### GHS Classification

Corrosive to metals (Category 1), H290

Skin corrosion (Category 1B), H314

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 1), H370

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

### GHS Label elements, including precautionary statements

Pictogram :



Signal word : Danger.

Hazard statement(s) :

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H370 Causes damage to organs.

Precautionary statement(s) :

P501 Dispose of contents/ container to an approved waste disposal plant.

P234 Keep only in original container.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301+ P330+ P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+ P361+ P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304+ P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+ P351+ P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/ physician.

P321 Specific treatment (see supplemental first aid instructions on this label).

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P405 Store locked up.

P406 Store in corrosive resistant stainless steel container with a resistant inner liner.

P501 Dispose of contents/ container to an approved waste disposal plant.

### Hazards not other classified (HNOC) or not covered by GHS

none

## 3. COMPOSITION/INFORMATION ON INGREDIENT

**Synonyms :** Coomassie™ dye binding protein assay, Protein dye reagent

Component	Classification	Concentration
Phosphoric acid		
CAS No	7664-38-2	10-20%
EC No	231-633-2	
Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; H290, H134		
Methanol		
CAS No	67-56-1	1-10%
EC No	200-659-6	
Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301 + H311 + H331, H370		

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no other ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## 4. FIRST AID MEASURES

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

**Inhalation:** 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 :** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for firefighters:** Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products:** Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine Carbon oxides, Oxides of phosphorus

**Further information:** Not data available.

## 6 . ACCIDENTAL RELEASE MEASURES

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

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

**Methods and materials for contaminant and cleaning up:** Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

## 7 . HANDLING AND STORAGE

**Precaution for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

**Condition for safe storage:** Keep container tightly closed in a dry and well-ventilated place.

**Recommended storage temperature:** Store between the following temperatures: 2 to 8°C

## 8 . EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Phosphoric acid CAS No 7664-38-2

TWA 1 mg/m<sup>3</sup> USA. ACGIH Threshold Limit Values (TLV)

STEL 3 ppm USA. ACGIH Threshold Limit Values (TLV)

TWA 1 mg/m<sup>3</sup> USA. ACGIH Threshold Limit Values (TLV)

STEL 3 ppm USA. ACGIH Threshold Limit Values (TLV)

Methanol CAS No 67-56-1

TWA 200 ppm USA. ACGIH Threshold Limit Values (TLV)

STEL 250 ppm USA. ACGIH Threshold Limit Values (TLV)

TWA 200 ppm 260 mg/m<sup>3</sup> USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption ST 250 ppm 325 mg/m<sup>3</sup>

USA. NIOSH Recommended Exposure Limits

Potential for dermal absorption TWA 200 ppm 260 mg/m<sup>3</sup>

USA. Occupational Exposure Limits

(OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m<sup>3</sup> is approximate.

STEL 250 ppm 325 mg/m<sup>3</sup> USA. OSHA - TABLE Z-1 Limits for

Air Contaminants - 1910.1000

Skin notation TWA 200 ppm 260 mg/m<sup>3</sup> USA. OSHA - TABLE Z-1 Limits

for Air Contaminants - 1910.1000

### Personal protective equipment:

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

**Eye protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Complete suit protecting against chemicals.

**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	Liquid
Color	slight brown

### Safety data:

pH	no data available
Melting point	no data available
Freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	Easily soluble in water
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odor	Odorless
Odor threshold	no data available
Evaporation rate	no data available

## 10 . STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### Condition to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight

### Materials to avoid

Strong oxidizing agents, Carbon dioxide (CO<sub>2</sub>), Copper

### Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . TOXICOLOGICAL INFORMATON

### Acute Toxicity

**Oral LD50** no data available

**Inhalation LC50** no data available

**Dermal LD50** no data available

**Other information on acute toxicity**  
no data available

**Skin corrosion/irritation**  
no data available

**Serious eye damage/eye irritation**  
no data available

**Respiratory or skin sensitization**  
no data available

**Mutagenicity (Germ cell mutagenicity)**  
no data available

**Carcinogenicity**  
no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.

no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP

no component of this product present at levels greater than or equal to 0.1% is

**Reproductive toxicity**  
no known significant effects or critical hazards.

**Teratogenicity**  
no data available

**Aspiration hazard**  
no data available

### Additional information

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema

**Specific target organ toxicity— single exposure (GHS)**  
no data available

**Specific target organ toxicity— repeated exposure (GHS)**  
no data available

**Aspiration hazard**  
no data available

### Potential health effects

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

**Aggravated Medical Condition**  
Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

**Synergistic effects**  
no known significant effects or critical hazards.

**Additional information**  
RTECS : none  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Stomach - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence (Phosphoric acid) Stomach - Irregularities - Based on Human Evidence (Methanol)

## 12 . ECOLOGICAL INFORMATION

### Toxicity

**Product/ingredient name** no data available

**Persistence and degradability**  
no data available

**Bioaccumulative potential**  
no data available

**Mobility in soil**  
no data available

**PBT and vPvB assessment**  
no data available

**Other adverse effect**  
no data available

## 13 . DISPOSAL CONSIDERATIONS

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14 . TRANSPORT INFORMATION

**DOT(US)** Not dangerous goods  
 UN number: 1805 Class: 8 Packing group: III  
 Proper shipping name: Phosphoric acid solution  
 Reportable Quantity (RQ): 50000 lbs  
 Marine pollutant: No  
 Poison Inhalation Hazard: No

### IMDG

UN number: 1805 Class: 8 Packing group: III  
 Proper shipping name: Phosphoric acid solution  
 Reportable Quantity (RQ): 50000 lbs  
 Marine pollutant: No

### IATA

UN number: 1805 Class: 8 Packing group: III  
 Proper shipping name: Phosphoric acid solution

## 15 . REGULATORY INFORMATION

### United States

SARA 302 components : no products were found  
 SARA 313 components : Methanol CAS No 67-56-1  
 SARA 311/312 : Acute Health Hazard, Chronic Health Hazard  
 Clean Air Act Section 112(b) : not listed  
 Hazardous air pollutants (HAPs)  
 Clean Air Act Section 602 : not listed  
 Class I substances  
 Clean Air Act Section 602 : not listed  
 Class II substances  
 DEA List I Chemicals : not listed  
 (Precursor chemicals)  
 DEA List II Chemicals : not listed  
 (Essential chemicals)

### States Regulation

Massachusetts : Phosphoric acid CAS-No. 7664-38-2  
 Methanol CAS-No 67-56-1  
 New York : None of the components are listed  
 New Jersey : Phosphoric acid CAS-No. 7664-38-2  
 Methanol CAS-No 67-56-1  
 Pennsylvania : Phosphoric acid CAS-No. 7664-38-2  
 Methanol CAS-No 67-56-1  
 California Prop. 65 Components :  
 WARNING: This product contains a chemical known to the  
 State of California to cause birth defects or other reproductive harm.  
 Methanol CAS-No. 67-56-1

### Canada

Not determined  
 Canadian lists  
 Canadian NPRI : Not determined  
 CEPA Toxic substances : Not determined

### International Regulation

Australia (AICS) : Not determined.  
 China Inventory (IECSC) : Not determined.  
 Japan Inventory : Not determined  
 Korea Inventory : Not determined  
 New Zealand Inventory of Chemicals (NZIoC): Not determined  
 Philippines Inventory (PICCS) : Not determined.  
 Malaysia Inventory (EHS Register): Not determined.  
 Taiwan inventory (CSNN): Not determined.

## 16

### HIMS Rating:

Health hazard : 3  
 Chronic Health Hazard : \*  
 Flammability : 0  
 Physical hazards: 0

### NFPA Rating:

Health Hazard: 3  
 Fire: 0  
 Reactivity Hazard: 0

### Full text of H-Statements referred to under sections 2 and 3.

Acute Tox. Acute toxicity  
 Eye Dam. Serious eye damage  
 Flam. Liq. Flammable liquids  
 H225 Highly flammable liquid and vapour.  
 H290 May be corrosive to metals.  
 H301 + H311 + H331  
 Toxic if swallowed, in contact with skin or if inhaled  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H370 Causes damage to organs.  
 Met. Corr. Corrosive to metals  
 Skin Corr. Skin corrosion

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

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When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS:  
 GenDEPOT LLC  
 Safety Department