

Revision Date: 08/20/20

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifiers

<i>Catalog Number</i>	<i>Product Name</i>
AA012	Glutaraldehyde, 25% EM Grade
BM545	BioMag [®] Magnetic Amine Immobilization Kit - (glutaraldehyde component 01909)
BP610	BioMag [®] Plus Amine Protein Coupling Kit - (glutaraldehyde component 610826)

1.2 Relevant identified uses of substance or mixture and uses advised against

Identified uses: Lab use

1.3 Details of the supplier of the safety data sheet

Company: Bangs Laboratories / A Division of Polysciences
 9025 Technology Drive
 Fishers, Indiana 46038
 USA

Telephone: 800-387-0672

1.4 Emergency telephone number

Emergency Phone: 317-348-1673

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification: Acute toxicity, Oral (Category), H302
 Acute toxicity, Inhalation (Category 4), H332
 Skin corrosion (Category 1B), H314
 Serious eye damage (Category 1), H318
 Respiratory sensitisation (Category 1), H334
 Skin sensitisation (Category 1), H317
 Acute aquatic toxicity (Category 1), H400
 Chronic aquatic toxicity (Category 2), H411

Signal word: Danger

Pictogram:



Hazardous substance or mixture according to Regulation (EU) No. 1272/2008.
 Hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Hazard Statement(s)

H302 + H332	Harmful if swallowed or if inhaled
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.

Hazard Statement(s) Continued

P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant

2.2 Hazard Ratings: These ratings are Bangs Laboratories, Inc.'s own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49). If no data is listed, the information is not available.

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
3	0	0

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>Item#</u>	<u>Name</u>	<u>CAS #</u>	<u>% in Product</u>
1	Water	0007732185	≥75
2	Glutaraldehyde	0000111308	≤25
3	Methanol	67561	≤1

SECTION 4: FIRST AID MEASURES

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Immediate medical attention is required.

Skin: In case of contact, immediately wash skin with copious amounts of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.

Ingestion: Contact physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Contact a physician or Poison Control center immediately.

Systemic: Treatment based on sound judgment of physician and the individual reactions of the patient.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: Carbon oxides

5.3 Advice for firefighters: Not applicable

5.4 Further Information: No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Any information given below is considered to be in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition source from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel. Wear vinyl gloves, soak up spill in paper toweling, and rinse area with water. Put all generated waste into an approved container and dispose of as waste. Observe all applicable federal, state, and local disposal laws.

6.2 Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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.

6.4 Reference to other sections: For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. In cases where there is a likelihood of inhalation exposure to dried particles, wear a NIOSH-approved dust respirator.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Storage: Recommended storage temperature -20 °C Store under inert gas. Air sensitive. Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Respiratory Protection: In case of insufficient ventilation wear suitable respiratory equipment.

Wash / Hygienic Practices: Wash with soap and water when leaving work area and before eating, smoking, and using restroom facilities.

8.2 Exposure Controls: Prevent product from entering drains. Do not allow material to contaminate ground water system.

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves. Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not internal immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Boiling Point:	101°C
Relative density:	1.061 g/cm ³
Solubility:	soluble
Appearance:	colorless liquid

9.2 Other safety information: None

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 Incompatible materials: No dangerous reaction known under conditions of normal use

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects: To the best of our knowledge, the chemical, physical, and toxic properties of this product have not been thoroughly investigated.

LD50 Oral-Rat-134 mg/kg (Glutaral)

LC50 Inhalation-Rat-4 h-0.48 mg/l (Glutaral) Remarks: Inhalation may effect the following organs: Lungs, Thorax, or Respiration: Dyspnea. Material is irritating to mucous membranes and upper respiratory tract.

LD50 Dermal-Rat-> 2,500 mg/kg (Glutaral) Remarks: Prolonged skin contact may cause skin irritation and/or dermatitis.

Skin corrosion/irritation: Skin-Rabbit (Glutaral) Result: Causes burns.(OECD Test Guideline 404)

Serious eye damage/eye irritation: Eyes-Rabbit(Glutaral) Result: Severe eye irritation-24 h

Respiratory or skin sensitisation: May cause allergic respiratory and skin reactions Chronic exposure may cause dermatitis. largely based on human evidence (Glutaral)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Additional Information: RTECS: Not available

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting (Glutaral)

Liver - Irregularities - Based on Human Evidence

Liver - Irregularities Based on Human Evidence (Glutaral)

Stomach - Irregularities - Based on Human Evidence (Methanol)

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity: Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout)-3.5 mg/l-96.0 h (Glutaral)

Toxicity to daphnia and other aquatic invertebrates EC50 - EC50-Daphnia magna (Water flea) - 0.75 mg/l-48 h (Glutaral)

Toxicity to algae - EC50-Desmodesmus subspicatus (green algae)-0.61 mg/l-72 h (Glutaral)

NOEC - Desmodesmus subspicatus (green algae)-0.025mg/l-72 h (Glutaral)

12.2 Persistence and degradability: Biodegradability Biotic/Aerobic Biochemical oxygen demand - Exposure time 28 d Result: 90-100 % - Readily biodegradable.

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/not conducted

12.6 Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods: The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number, the substance may be subject to special federal and state disposal regulations. If no codes are listed, the material must be disposed of in compliance with all Federal, State, and Local Regulations. Bangs Laboratories disposes of polymer-based microparticles through our standard chemical waste disposal program, which is performed by a licensed provider in a safe, compliant, and environmentally-conscious manner.

<u>CAS #</u>	<u>Waste Code</u>	<u>Regulated Name</u>
0007732185	not listed	not listed
0000111308	not listed	not listed
67561	not listed	not listed

SECTION 14: TRANSPORT INFORMATION

Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

SECTION 15: REGULATORY INFORMATION

All components of this product are on the TSCA public inventory.

Prop 65: Column A identifies those items which are known to the State of California to cause cancer. Column B identifies those which are known to the State of California to cause reproductive toxicity.

<u>CAS #</u>	<u>Column A</u>	<u>Column B</u>
0007732185	no	no
0000111308	no	no
67561	no	no

SARA Toxic Release Chemicals (as defined in Section 313 of SARA Title III): This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). This list is also referred to as the Toxic Release Inventory (TRI) List.

<u>CAS #</u>	<u>Regulated Name</u>	<u>de minimis conc %</u>	<u>Rep. Thres.</u>
0007732185	not listed	not listed	not listed
0000111308	not listed	not listed	not listed
67561	not listed	not listed	not listed

SARA Extremely Hazardous Substances and TPQs: This list identifies hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<u>CAS #</u>	<u>Regulated Name</u>	<u>TPQ (pounds)</u>	<u>EHS-RQ (pounds)</u>
0007732185	not listed	not listed	not listed
0000111308	not listed	not listed	not listed
67561	not listed	not listed	not listed

SECTION 16: OTHER INFORMATION

BANGS LABORATORIES, INC. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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Preparation Information:
Bangs Laboratories, Inc.
1-800-387-0672

END OF SDS