<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G7471</td>
<td>Magne™ Protein G Beads, 20% Slurry</td>
</tr>
</tbody>
</table>

Components:

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G747</td>
<td>Magne™ Protein G Beads</td>
</tr>
</tbody>
</table>
1 Identification

Product identifier
Trade name: Magne™ Protein G Beads

Article number: G747

Application of the substance / the mixture: For Laboratory Use

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department:
SDS author: ChemicalRegulatory@promega.com
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Emergency telephone number:
For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA
and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture

GHS02 Flame

 Flam. Liq. 3 H226 Flammable liquid and vapor.

Label elements
GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms

GHS02

Signal word: Warning
Hazard statements
Flammable liquid and vapor.

(Contd. on page 2)
Trade name: Magne™ Protein G Beads

Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)
Health = 1
Fire = 2
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 1
Fire = 2
Reactivity = 0

OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Combustible
Target Organ(s):
May cause Liver damage (Hepatotoxin)
May affect Nervous system (Neurotoxin)

Other hazards

Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description:
The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:
64-17-5 ethanol 15-20%

Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures
General information: Immediately remove any clothing soiled by the product.
After inhalation: If the patient feels unwell or is concerned, obtain medical advice.
After skin contact: Generally the product does not irritate the skin.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:
Most important symptoms and effects, both acute and delayed
Headache
Dizziness

(Contd. on page 3)
5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, sand, extinguishing powder. Do not use water.
Use fire fighting measures that suit the environment.
For safety reasons unsuitable extinguishing agents:
Water
Water with full jet
Special hazards arising from the substance or mixture
None known
No further relevant information available.
Advice for firefighters No special advice

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures
Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
Keep away from ignition sources
Wear protective clothing.
Environmental precautions: Do not allow to enter sewers/surface or ground water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Reference to other sections
See Section 7 for information on safe handling.
See Section 13 for disposal information.

7 Handling and storage

Handling:
Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Use only in well ventilated areas.
Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep receptacle tightly sealed.
8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethanol</td>
<td>PEL Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>REL Long-term value: 1900 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td></td>
<td>TLV Short-term value: 1880 mg/m³, 1000 ppm</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves
Select the glove material considering penetration time, rate of diffusion and degradation time.
It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye protection: Use equipment for eye protection tested and approved under government NIOSH standards.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Fluid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

Change in condition

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>23 - 60 °C (73.4 - 140 °F)</td>
</tr>
</tbody>
</table>

Flammability (solid, gaseous):

Not applicable.

Ignition temperature:

425 °C (797 °F)

Decomposition temperature:

Not determined.
10 Stability and reactivity

Reactivity: No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification: No data available
Primary irritant effect:
on the skin: No data available.
on the eye: No data available.
Sensitization: No sensitizing effects known.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories
IARC (International Agency for Research on Cancer)
64-17-5 ethanol
Trade name: Magne™ Protein G Beads

12 Ecological information

Toxicity
Aquatic toxicity:
Not available
No further relevant information available.

Persistence and degradability
Not available
No further relevant information available.

Bioaccumulative potential
Not known
No further relevant information available.

Mobility in soil
No further relevant information available.

Ecotoxicological effects:
Remark: Not available

Additional ecological information:
General notes: No data available.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

Other adverse effects
No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation:
Disposal should be in accordance with applicable regional, national and local laws and regulations.
Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

<table>
<thead>
<tr>
<th>Label/Specification</th>
<th>Classification/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number, DOT, ADR, ADN, IMDG, IATA</td>
<td>Not hazardous for transportation, Not applicable</td>
</tr>
<tr>
<td>UN proper shipping name, DOT, ADR, ADN, IMDG, IATA</td>
<td>None, Not applicable</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>None</td>
</tr>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA, Class</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group</td>
<td>None</td>
</tr>
</tbody>
</table>
**51.1.1**

**DOT, ADR, IMDG, IATA**

Not applicable

**Environmental hazards:**

Marine pollutant: No

**Special precautions for user**

Not applicable.

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

Not applicable.

**UN "Model Regulation":**

Not applicable

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**15 Regulatory information**

Safety, health and environmental regulations/legislation specific for the substance or mixture

**Sara**

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) Inventory:**

64-17-5 ethanol

**Hazardous Air Pollutants**

None of the ingredients are listed.

**Proposition 65**

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

64-17-5 ethanol

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

64-17-5 ethanol [A3]

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

**GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Signal word** Warning

**Hazard statements**

Flammable liquid and vapor.

**Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:**
Promega Corporation
Chemical Regulatory Department
2800 Woods Hollow Road
Madison, WI
Ph: (608) 274-4330

**Date of preparation / last revision** 12/09/2020 / 1.0

**Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3

* Data compared to the previous version altered.*