

MATERIAL SAFETY DATA SHEET

Version: 3 Date: 19/11/2015

Producto: **Universal Gluten Extraction Solution (UGES).**

Cat. Nº.: **RS-6147; RS-5321; RS-5647; RS-5647; RS-6187**

1. PRODUCT AND COMPANY INFORMATION

BIOMEDAL S.L.

Emergency call: (+34) 95.408.12.76

NOTE: If this product is a kit or is supplied with more than one material, please refer to the MSDN for each component for hazard information.

PRODUCT USE: These products are for laboratory research use only and are not intended for human or animal diagnostics, therapeutic, or other clinical uses.

SYNONYMS: Not available.

2. COMPOSITION, INFORMATION ON

INGREDIENTS

CAS-No	EC-No	Index-No	Concentration
Component A			
Confidential trade secret information			0.5 M
Component B			
Confidential trade secret information			0.1%
Component C			
Confidential trade secret information			1mM
Ethanol			
64-17-5	200-578-6	603-002-00-5	20%

3. HAZARDS IDENTIFICATION

Component A

- Not hazardous according to (EC) No 1272/2008
- Not dangerous according to Directive 67/548/EEC
- Does not need to be labelled in accordance with EC directives or respective national laws

Component B

- According to (EC) No 1272/2008[EU-GHS/CLP]:

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure
(Category 3)

- According to EU Directives 67/548/EEC or
1999/45/EC:

Irritating to eyes, respiratory system and skin.

- Labeling according Regulation (EC) No

1272/2008 [CLP]

Signal word: Warning

Hazard statements: H315, H319, H335.

Precaution statements: P261,
P305+P351+P338 According to (EC) No 1272/2008[EU-
GHS/CLP]:

Skin irritation (Category 2)

Eye irritation (Category 2)

Specific target organ toxicity - single exposure
(Category 3)

- According to EU Directives 67/548/EEC or
1999/45/EC:

Irritating to eyes, respiratory system and skin.

- Labeling according Regulation (EC) No

1272/2008 [CLP]

Signal word: Warning

Hazard statements: H315, H319, H335.

Precaution statements: P261, P305+P351+P338

Component C

- According to (EC) No 1272/2008[EU-GHS/CLP]:

Skin corrosion (Category 1B)

- According to EU Directives 67/548/EEC or
1999/45/EC:

Causes burns.

- Labeling according Regulation (EC) No
1272/2008 [CLP]

Signal word: Danger

Hazard statements: H314.

Precaution statements: P280, P305+P351+P338,
P310

Ethanol

- Classification according to Regulation (EC) No
1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 2)

- Classification according to EU Directives 67/548/EEC
or 1999/45/EC

Highly flammable.

- Labeling according Regulation (EC) No 1272/2008
[CLP]

Pictogram Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot
surfaces. - No smoking.

Supplemental Hazard

Statements none

4. **FIRST AID MEASURES**

- General advice: Consult a physician. Show this
MSDS to the doctor in attendance.

- If inhaled: If breathed in, move person into fresh air. If
not breathing, give artificial respiration. Consult a
physician.

- In case of skin contact: Take off contaminated
clothing and shoes immediately. 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. **FIRE FIGHTING MEASURES**

- Extinguishing media:

Suitable extinguishing media: use water spray,
alcoholresistant foam, dry chemical or carbon dioxide.

- Special hazards arising from the substance or
mixture: Thermal decomposition may produce toxic
fumes of phosphorus oxides and/or phosphine, Carbon
oxides, nitrogen oxides (NOx), Hydrogen chloride gas
Nature of decomposition products not known.

Carbon oxides, Oxides of phosphorus, Hydrogen
chloride gas

- Precautions for fire-fighters:

Wear self contained breathing apparatus for fire fighting
if necessary.

6. **ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and
emergency procedures. Use personal protective
equipment. Avoid dust formation. Avoid breathing
vapors, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas. Avoid breathing dust.

- Environmental precautions

Do not let product enter drains.

- Methods and materials for containment and
cleaning up.

Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed
containers for disposal.

- Reference to other sections

For disposal see section 13.

7. **HANDLING AND STORAGE**

- Precautions for safe handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

No smoking. Take measures to prevent the build up of electrostatic charge.

- Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

Recommended storage temperature: 2 - 30 °C

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear liquid

Appearance: colorless

Odor: odorless

pH: Not available

Vapor Pressure: 59.5hPa at 20.0°C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: Not available

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available

Molecular Formula: Not available

Molecular Weight: Not available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Reactivity:

no data available.

Possibility of hazardous reactions

no data available.

Conditions to avoid

no data available.

Materials to avoid

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx).

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

- Component A

No data available

- Component B

LD50 Intraperitoneal - rat - 40 mg/kg

- Component C

LD50 Oral - rat - 3.500 mg/kg.

LD50 Dermal - rat - > 3.000 mg/kg.

- Ethanol

LD50 Oral - rat - 7.060 mg/kg

Remarks: Lungs, Thorax, or Respiration:Other changes.

LC50 Inhalation - rat - 10 h - 20000 ppm

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

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 IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

- Component A

No data available

- Component B

Inhalation - May cause respiratory irritation.

- Component C

No data available

- Ethanol

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Potential health effects

- Inhalation. May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

- Ingestion. May be harmful if swallowed.

Causes burns.

- Skin May be harmful if absorbed through skin. Causes skin burns.

- Eyes Causes eye burns.

Additional Information

RTECS: Not available (Component A)

RTECS: Not available (Component B)

RTECS: Not available (Component C)

RTECS: KQ6300000 (Ethanol)

12. ECOLOGICAL INFORMATION

Toxicity

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 effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

- Component A

ADR/RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

- Component B

UN-Number

ADR/RID: 2811 IMDG: 2811 IATA: 2811

UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S.

IMDG: TOXIC SOLID, ORGANIC, N.O.S.

IATA: Toxic solid, organic, n.o.s.

Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for users

no data available

- Component C

UN-Number

ADR/RID: 3261 IMDG: 3261 IATA: 3261

UN proper shipping name

ADR/RID: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Tris(2-carboxyethyl)phosphine hydrochloride)

IMDG: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Tris(2-carboxyethyl)phosphine hydrochloride)

IATA: Corrosive solid, acidic, organic, n.o.s. (Tris(2-carboxyethyl)phosphine hydrochloride)

Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for users

no data available

-Ethanol

UN-number

ADR/RID: 1170 IMDG: 1170 IATA: 1170

UN proper shipping name

ADR/RID: ETHANOL

IMDG: ETHANOL

IATA: Ethanol

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA:

no

Special precautions for user

no data available

inclusive and is to be used only as a guide. All material and mixtures may present unknown hazards and should be used with caution. Since BIOMEDAL S.L. cannot control the actual methods, volumes, or conditions of use, the company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as describe herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF ERCHANTABIILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

16. OTHER INFORMATION

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all