



**ACROYALI HOLDINGS QINGDAO CO.,LTD**

A2,8/F.Flagship Tower,No.40 Hongkong Middle Rd,Qingdao, China

**Tel: (86) 532 86677827**

**Fax: (86) 532 86677825**

**Email: [info@aionschem.com](mailto:info@aionschem.com)**

**[Http://www.aionschem.com](http://www.aionschem.com)**

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## **PROPYLENE GLYCOL ALGINATE (PGA) TECHNICAL DATA SHEET**

### **General Description**

Food grade Propylene Glycol Alginate (PGA) is used as foam stabilizer in the brewing industry. PGA is the propylene glycol ester of Alginic acid which is a linear polymer of 1-4Beta D-Mannuronic acid and 1-4Alpha L-Guluronic acid residues extracted from marine brown algae (Phaeophyceae).

### **Application**

PGA is used in the brewing industry as a foam stabilizer.

### **Specification**

Appearance : White/pale straw crystalline powder

Moisture content : 15% Max

Free acid content (Dry): 5% Max

Ester content (Dry) : 78%Min

PH (2% w/v soln) : 3.7 - 4.5

Sodium (1% w/v soln) : 120ppm Max.

### **Legal Status**

PGA is permitted as a food additive (E405) in a number of applications, including beer.

PGA is a permitted additive in the USA (21CFR172.858).

### **Storage**

PGA has a shelf-life of 14 months from date of manufacture. Store in cool, dry conditions (5Deg.C – 20Deg.C). Product stored longer than recommended shelf-life should be retested before use, to confirm quality.

### **Packaging**

25kgs Fibre drums with PE or /Aluminium foiled liner



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## **MATERIAL SAFETY DATA SHEET (MSDS)**

### **Propylene Glycol Alginate**

#### **1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Propylene Glycol Alginate

Product code : AC0006

Description : Powder preparation

Use: Foam stabilizer

Supplier : Acroyali Holdings Qingdao Co.,Ltd

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#### **2. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical nature / Synonyms Propylene glycol alginate, food-grade

CAS no 9005-37-2

Ingredient Statement Propylene glycol alginate E405

#### **3. HAZARDS IDENTIFICATION**

This material is not classified as dangerous according to EU criteria.

Health hazards: Not considered harmful

Physio-chemical hazards : None

Environment hazards: This is product is a powder. Although not considered flammable, it will burn if involved in a fire, releasing typical products of ordinary combustion. Any material that is spilled on a surface that is wet, or becomes wet, will be extremely slippery.

#### **4. FIRST AID MEASURES**

Inhalation: Remove from exposure.

If irritation or allergic response develops, consult a doctor.

Skin contact: Wash skin with plenty of cold water.

Eye contact: Irrigate eyes with cold water for at least 20 mins. Obtain medical advice if irritation occurs

Ingestion: Rinse mouth thoroughly with water and drink water afterwards. Consult a doctor.

#### **5. FIRE FIGHTING MEASURES**

Suitable fire fighting

extinguishing media: Water and /or foam chemical for surrounding fire

Special measures: Treat as a "Class A" fire. Product will burn when in contact with flame, self

—extinguishes when ignition source is removed but tends to smoulder. Auto ignition temperature is above 200Deg.C

Unusual Fire and Explosion Hazards: As with most organic materials, this product should be treated as combustible dust when in the finely divided and air-suspended state. Surfaces that may be covered with this product will become extremely slippery upon application of water.

#### **6. ACCIDENTAL RELEASE MEASURES**

Personal protective equipment as outlined in section 8 must be used when dealing with accidental



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release of product.

Spillages : If dry, shovel, vacuum or sweep up and dispose of in accordance with local authority regulations. The use of water washdown is not recommended unless the spilled material is already wet.Spills will become extremely slippery if wetted. Wet spills should be thoroughly flushed with water until non- slippery

### 7. HANDLING AND STORAGE.

Storage Store in a cool and dry place.

Shelflife 12 months from date of manufacture

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection is necessary in circumstances where there is accidental or uncontained release of product.

General precautions: Handle in accordance with good occupational hygiene and safety practices

Respiratory protection: Respirator approved for solid and liquid particulates including dusts and mists e.g. 3M 8810 mask or respirator with P3 filter or equivalents

Hand protection: Impermeable gloves

Eye protection: Protective glasses

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Colour/Physical state: White/ pale straw crystalline powder

pH (2%soln): 3.7 - 4.4

Autoflammability: Not applicable Bulk Density: 0.74 + 1.5g/cc

Flashpoint: Not applicable

Solubility: Insoluble in cold water

Melting point: Not available

Boiling point: Not applicable

### 10. STABILITY AND REACTIVITY

This product is stable under normal conditions of use.

Material to avoid: Avoid contact with strong acids, oxidising agents.

Hazardous combustion or decomposition

products: Normal products of combustion of carbohydrates including carbon monoxide, smoke.

### 11. TOXICOLOGICAL INFORMATION

The safety of the material as a food additive has been evaluated by JECFA on the basis of a number of acute and (sub)chronic toxicological studies, see JECFA report no. 41, p.22 (WHO Technical Report Series no. 837) for more details.

### 12. ECOLOGICAL INFORMATION

This product type is believed not to be dangerous to the environment. As a carbohydrate, this material should be readily biodegradable at low concentrations

### 13. DISPOSAL CONSIDERATIONS

Product and contaminated packaging must be disposed of in accordance with local authority regulations.

#### Liquid products:

Surplus liquid spills may be disposed of to municipal / waste water treatment plants as it is biodegradable,



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or in accordance with local authority regulations.

### **Liquid product packaging:**

Containers should be drained of excess residue and rinsed with water. The containers may then be recycled / reused or disposed of as in accordance with local authority regulations.

### **Powder products:**

Powder may be disposed of to landfill / incineration as in accordance with local authority regulations.

### **Powder product packaging:**

Care should be taken to ensure that the packaging is free from any residues before it can be sent for recycling/reuse or further disposal in accordance with local authority regulations.

## **14. TRANSPORT INFORMATION**

This product is not a dangerous good according to international regulations for transport

UN number: Not assigned

IMDG code: Not classified

Hazard label no: Not assigned

ICAO/IATA: Not classified

RID code: Not classified

ADR class: Not classified

CEFIC code Not assigned

Kemler code: Not assigned

## **15. REGULATORY INFORMATION**

EU Regulations

Risk phrases: Product is not classified according to the EU regulations.

## **16. OTHER INFORMATION**

The information contained in this safety data sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendation or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product. The information in this sheet does not represent analytical specifications, for which please refer to our technical data sheet.

PGA is permitted as a food additive(E405) in a number of applications, including beer. It is permitted additive in the USA (21CFR172.858)

MSDS format conforms to EC directive 2001/58/EC.

Date of preparation 30/01/09

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