



山东国丰君达化工科技股份有限公司  
SHANDONG GUOFENGJUNDA CHEMICAL TECH CO., LTD

**Website** : www.guofengjunda.com **Email** : peterchen@gfjdkj.com

**Phone NO.** : (+86)05468833717 **Fax No.** : (+86)05468833717

**Address** : Shikou Eco-Chemical And Circular Economy Industrial  
Area ,Dongying District ,Dongying ,Shandong ,China

#### 1.1 Product Identifier

**Product Name** EPTAC

**Synonyms** Glycidyltrimethylammonium chloride

2,3 epoxypropyltrimethylammoniumchloride

**Formula** C<sub>6</sub>H<sub>14</sub>NOCl

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

**Recommended Use** Intermediate under Strictly Controlled Conditions and is mainly used for the cationization of starch

#### 1.3 Details of the supplier of the safety data sheet

#### 1.4 Emergency telephone number

**Emergency telephone number** •86-546-8833717

#### Manufacturer

•Shandong Guofengjunda Chemical Tech Co.,Ltd

SHIKOU ECO-CHEMICAL AND CIRCULAR ECONOMY INDUSTRIAL AREA,  
DONGYING DISTRICT,DONGYING,SHANDONG,CHINA

Telephone: 86-546-8833717

E-mail: peter.chen@guofengjunda.com

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#### Supplier

•Shandong Guofengjunda Chemical Tech Co.,Ltd

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## SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### REGULATION (EC) No 1272/2008

Acute toxicity - Oral Category 4

Acute toxicity - Dermal Category 4

Serious eye damage/eye irritation Category 1

Skin sensitization Category 1B

Germ cell mutagenicity Category 2

Carcinogenicity Category 1B

Reproductive toxicity Category 2

**Revision Date** :10 Jan ,2019



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Specific target organ toxicity (repeated exposure) Category 2

Chronic aquatic toxicity Category 3

## 2.2 Label Elements



### Signal word

Danger

### Hazard statements

- H350-May cause cancer
- H341-Suspected of causing genetic defects
- H361f-Suspected of damaging fertility
- H312-Harmful in contact with skin
- H302-Harmful if swallowed
- H373-May cause damage to organs through prolonged or repeated exposure
- H318-Cause serious eye damage
- H317-May cause an allergic skin reaction
- H412-Harmful to aquatic life with long lasting effects

### Precautionary statements

- P201-Obtain special instructions before use
- P363-Wash contaminated clothing before reuse
- P273-Avoid release to the environment
- P310-Immediately call a POISON CENTER or doctor/physician

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•P281-Usepersonalprotectiveequipmentasrequired

•P305+P351+P338-IFINEYES:Rinsecautiouslywithwaterforseveralminutes.Removecontactl

enses,ifpresentandeasy

to do. Continue rinsing

### 2.3 Other Information

None known

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

**General advice** Do not get in eyes, on skin, or on clothing

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

**Ingestion** Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

**Inhalation** Move to fresh air. If breathing but unconscious, place in the recovery position. Consult a physician if necessary.

**Self-protection of the first aider** Avoid contact with eyes, skin and clothing.

### 4.2 Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically.

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## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Alcohol resistant foam.

Dry chemical. Carbon dioxide (CO<sub>2</sub>). Contains organic solvents. Water spray.

#### Extinguishing media which shall not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

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## **5.2 Special hazards arising from the substance or mixture**

### **Specific hazards arising from the chemical**

Hazardous combustion products. Copolymer of vinyl chloride and vinyl acetate.

## **5.3 Protection of firefighters**

### **Protective equipment and precautions for firefighters**

Standard procedure for chemical fires. Evacuate personnel to safe areas. Evacuate area and fight fire from a safe distance. Wear

self contained breathing apparatus for fire fighting if necessary.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid contact with eyes, skin and clothing. Use personal protective equipment.

### **6.2 Environmental precautions**

Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be

advised if significant spillages cannot be contained.

### **6.3 Methods and materials for containment and cleaning up**

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place

in container for disposal according to local / national regulations (see section 13)

Contain all contaminated water for removal and treatment

#### **Methods for cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

### **6.4 Reference to other sections**

See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment

Information.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

#### **Handling**

Do not get in eyes, on skin, or on clothing. Do not breathe dusts or mists. Use only in area provided with appropriate exhaust

ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage**

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Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of

ignition (i.e., pilot lights, electric motors and static electricity). Polyethylene containers.

### 7.3 Specific end use(s)

#### Specific use(s)

No information available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

**Exposure limits** We are not aware of any national exposure limit.

### 8.2 Exposure controls

**Engineering Controls** Use only in well-ventilated areas. Provide controls to prevent exposure to mists and sprays.

#### Personal Protective Equipment

**Eye Protection** Wear safety glasses or full face shield if splashes are likely to occur.

**Skin Protection** Long sleeved clothing. Do not get on skin or clothing. Chemical resistant apron. Long sleeved clothing.

**Hand Protection** Impervious gloves. Neoprene gloves. Nitrile rubber.

Glove material Glove thickness Break through time Remarks

Nitrile rubber 1.1 mm Methanol > 30 minutes

n-Heptane > 480 minutes

Sodium hydroxyde > 480 minutes

Sulfuric acid > 60 minutes

Protective gloves complying with

EN 374.

**Respiratory protection** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

**Protective equipment** Ensure that eyewash stations and safety showers are close to the workstation location.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash hands before

breaks and immediately after handling the product. P242 - Use only non-sparking tools.

**Environmental Exposure Controls** Prevent product from entering drains. Do not allow material to contaminate ground water

system. Local authorities should be advised if significant spillages cannot be contained.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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#### 9.1 Information on basic physical and chemical properties

**Explosive properties** None

**Oxidizing Properties** None

#### 9.2 Other Information

**Freezing Point** No data available

**Molecular Weight** 151.7

**Density** 1.13 - 1.18 g/ml

**Bulk Density** No data available

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

**Reactivity** No information available

#### 10.2 Chemical Stability

**Stability** Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

**Hazardous Reactions** None under normal processing.

#### 10.4 Conditions to Avoid

**Conditions to Avoid** Temperatures above 70°C. Keep away from heat, sparks, flame and other sources of

ignition (i.e., pilot lights, electric motors and static electricity).

#### 10.5 Incompatible Materials

**Materials to avoid** Strong bases.

#### 10.6 Hazardous Decomposition Products

**Hazardous Decomposition Products** Amines

**Physical state** Liquid **Appearance** Colorless; Yellow

**Odor** Odorless.

#### Property Values *Remarks*•*Method*

**pH** 10 - 11.5

**Flash Point** 138 C CC (closed cup)

**Autoignition Temperature** > 400 C

**Boiling point** ca. 110 C

**Melting point** 0-5 C

**Evaporation Rate** No data available

**Flammability (solid, gas)** No data available

**Flammability Limit in Air** No data available

**Explosive Limits** No data available

**Vapor pressure** < 0,001 Pa between 20°C - 80 °C

**Vapor Density** No data available

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**Specific Gravity** No data available

**Water Solubility** Soluble in water

**Solubility in other solvents** No data available

**Solubility**

**Partition coefficient** -3.39

**Decomposition temperature °C** No data available

**Dynamic viscosity** 120 mPa.s

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

**Product Information** This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

**Inhalation** Harmful by inhalation.

**Eye Contact** Corrosive to the eyes and may cause severe damage including blindness.

**Skin Contact** Harmful in contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**Ingestion** Harmful if swallowed.

#### Component Oral LD50 Dermal LD50 Inhalation LC50

Glycidyltrimethylammonium chloride

3033-77-0 ( 70 )

740 mg/kg (100%) (rat)

400-800 mg/kg (40%) (rat)

1500-3000 mg/kg (70%) (rabbit) <12.05 mg/kg (70%) (7h rat)

3-chloro-2-hydroxypropyltrimethyl

ammonium chloride

3327-22-8 ( 1-3 )

No information available No information available No information available

#### Chronic Toxicity

##### Carcinogenicity Category 1

- California - Proposition 65 - Carcinogens List This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

##### Component EU Annex I Carcinogen Information United Kingdom

Glycidyltrimethylammonium chloride

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3033-77-0 ( 70 )

603-211-001

**Corrosivity** Risk of serious damage to eyes. Causes burns

**Sensitization** Repeated or prolonged contact may cause allergic reactions in very susceptible persons

**Carcinogenic effects** No information available.

**Reproductive Toxicity** Category 2

**Mutagenic Effects** Mutagenic Category 2

**Target Organ Effects** Skin; Eyes; Respiratory system

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## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Ecotoxicity effects** Harmful to aquatic organisms.

**Water hazard class (WGK)** = 3

**Component Algae/aquatic plants Freshwater Fish Microtox Crustacea**

Glycidyltrimethylammonium chloride

3033-77-0 ( 70 )

EC50/72h = 33 mg/l LC50/96h/goldfish = 2748

mg/l

No information available LC50/24h/daphnia = 46

mg/l

3-chloro-2-hydroxypropyltrimethyl

ammonium chloride

3327-22-8 ( 1-3 )

No information available No information available No information available No information available

### 12.2 Persistence and degradability

Product has a moderate potential to bioconcentrate.

### 12.3 Bioaccumulative potential

Does not bioaccumulate Product has a moderate potential to bioconcentrate

**Component Partition coefficient**

Glycidyltrimethylammonium chloride

3033-77-0 ( 70 )

-3.39

### 12.4 Mobility in soil

Soluble in water

### 12.5 Results of PBT and vPvB assessment

### 12.6 Other Adverse Effects

No information available

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

**Disposal Considerations** Dispose of in accordance with local regulations

Do not discharge product into the aquatic environment without pretreatment (biological treatment plant)

Can be incinerated, when in compliance with local regulations

#### **Waste from residues/unused**

##### **products**

Should not be released into the environment

May be biodegradable in an acclimated biological treatment facility

Can be incinerated, when in compliance with local regulations

#### **Contaminated packaging** Empty remaining contents

Triple rinse containers

Empty containers should be taken to an approved waste handling site for recycling or disposal

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### SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**ADR** Not regulated

**ICAO** Not classified as dangerous in the meaning of transport regulations

**IATA** Not regulated

### SECTION 15: REGULATORY INFORMATION

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

**Classification according to Directive 67/548/EEC or 1999/45/EC**

**Water hazard class (WGK)** = 3

#### **International Inventories**

**Chemical name** EINECS ELINCS TSCA DSL NDSL PICCS ENCS CHINA AICS KECL

Glycidyltrimethylam

monium chloride

X - X - X X - X X KE-05-0595

3-chloor-2-hydroxyp

ropyltrimethyl

ammonium chloride

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#### 15.2. Chemical safety assessment

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A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

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## SECTION 16: OTHER INFORMATION

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

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H341 - Suspected of causing genetic defects

H350 - May cause cancer

H351 - Suspected of causing cancer

H361f - Suspected of damaging fertility

H373 - May cause damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

### Labeling

**Contains** Glycidyl trimethylammonium chloride (70% in water)

**Issuing date** 11-Sep-2008

**Revision Date** 19-May-2016

**Revision Note** SDS sections updated, 8, 15

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. In case of any questions, please refer to the official document in English and contact us in your region.

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