

# Material Safety Data Sheet

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name **Ethyltriphenylphosphonium acetate, 70% in methanol**

CAS Number: 35835-94-0

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

Identified use: SU24 Scientific research and development

### 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:

Kaimosi Biochem Tech CO. LTD  
Suite# 21A, No. 1 Building, Guodu Development Mansion, No. 182 Chaohui Road, Hangzhou  
China. 310005  
Tel : +86 571 87162326

Emergency telephone number: +86 18655917701

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 1 H224 Extremely flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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



T; Toxic

R23/25: Toxic by inhalation and if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.



F; Highly flammable

R11: Highly flammable.

### Information concerning particular hazards

for human and environment:

Not applicable

Other hazards that do not result in classification

No information known.

**2.2 Label elements**  
**Labelling according to Regulation (EC) No 1272/2008**  
**Hazard pictograms**  
**Signal word**  
**Hazard statements**

The substance is classified and labelled according to the CLP regulation.

GHS02, GHS06

Danger

H224 Extremely flammable liquid and vapour.

H301 Toxic if swallowed.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P320 Specific treatment is urgent (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Precautionary statements**

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

**CAS# Designation:** 35835-94-0 Ethyltriphenylphosphonium acetate, 70% inmethanol

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information**

Instantly remove any clothing soiled by the product.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek immediate medical advice.

**After inhalation**

Instantly wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

**After skin contact**

Rinse opened eye for several minutes under running water. Then consult doctor.

**After eye contact**

Do not induce vomiting; instantly call for medical help.

**After swallowing**

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(Contd. of page 1)

**Trade name Ethyltriphenylphosphonium acetate, 70% inmethanol**

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

No further relevant information available.

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

No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

**Suitable extinguishing agents**

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

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Phosphorus oxides

**5.3 Advice for firefighters**

**Protective equipment:**

Wear self-contained breathing apparatus.

Wear full protective suit.

**SECTION 6: Accidental release measures**

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

**6.2 Environmental precautions:**

**6.3 Methods and material for containment and cleaning up:**

Keep away from ignition sources.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Keep away from ignition sources.

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**Prevention of secondary hazards:**

**6.4 Reference to other sections**

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle container with care.

### Information about protection against explosions and fires:

Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.

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

#### Storage Requirements to be met by storerooms and containers:

Store in cool location.

#### Information about storage in one common storage facility:

Store away from oxidizing agents.

#### Further information about storage conditions:

Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Store in a locked cabinet or with access restricted to technical experts or their assistants.

### 7.3 Specific end use(s)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

### 8.1 Control parameters

#### Components with critical values that require monitoring at the workplace:

Methyl acetate	
	ppm
ACGIH TLV	200, 250-STEL
Belgium TWA	200, 250-STEL
Denmark TWA	200
Finland TWA	200, 250-STEL
France TWA	200, 250-STEL
Germany TWA	200
Hungary TWA	200 mg/m <sup>3</sup> , 500 mg/m <sup>3</sup> -STEL
Ireland TWA	200, 250-STEL
Netherlands TWA	200
Poland TWA	100 mg/m <sup>3</sup>
Russia TWA	200, 100 mg/m <sup>3</sup> -STEL
Switzerland TWA	200, 400-STEL
United Kingdom TWA	200, 250-STEL
USA PEL	200
Acetic acid	
	ppm
ACGIH TLV	10; 15-STEL
Australia TWA	10; 15-STEL
Austria MAK	10
Belgium	10; 15-STEL
Denmark TWA	10
Finland TWA	10; 15-STEL (skin)
France VLE	10
Germany MAK	10
Hungary	4; 8-STEL
Japan OEL	10
Korea TLV	10; 15-STEL
Netherlands MAC-TGG	10
Norway TWA	10
Poland TWA	2; 14-STEL
Russia	2-STEL (skin)
Sweden NGV	5; 10-KTV

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Trade name **Ethyltriphenylphosphonium acetate, 70% inmethanol**

Switzerland MAK-W 10; 20-KZG-W  
 United Kingdom 10; 15-STEL  
 USA PEL 10

Methyl alcohol  
 ppm  
 ACGIH TLV 200; 250-STEL (skin)  
 Austria MAK 200 (skin)  
 Belgium TWA 200; 250-STEL, (skin)  
 Denmark TWA 200 (skin)  
 Finland TWA 200; 250-STEL (skin)  
 France VME 200; 1000-VLE  
 Hungary TWA 50 mg/m<sup>3</sup>; 100 mg/m<sup>3</sup>-STEL (skin)  
 Japan OEL 200 (skin)  
 Korea TLV 200; 250-STEL (skin)  
 Netherlands MAC-TGG 200 (skin)  
 Norway TWA 100  
 Poland TWA 100 mg/m<sup>3</sup>; 300 mg/m<sup>3</sup>-STEL  
 Russia TWA 200; 5 mg/m<sup>3</sup>-STEL (skin)  
 Sweden NGV 200; 250-KTV (skin)  
 United Kingdom TWA 200; 250-STEL (skin)  
 OSHA PEL 200  
 No data

**Additional information:****8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Use self-contained respiratory protective device in emergency situations.

Check protective gloves prior to each use for their proper condition.

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.

**Breathing equipment:****Protection of hands:****Material of gloves****Penetration time of glove material****Eye protection:****Body protection:**

Impervious gloves

Not determined

Safety glasses

Face protection

Protective work clothing.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form: Liquid  
 Colour: Amber coloured  
 Smell: Not determined  
 Odour threshold: Not determined.

pH-value: Not determined.

**Change in condition**

Melting point/Melting range: Not determined  
 Boiling point/Boiling range: Not determined  
 Sublimation temperature / start: Not determined

Flash point: -17 °C

Inflammability (solid, gaseous): Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Self-inflammability: Not determined.

Critical values for explosion:

Lower: Not determined

Upper: Not determined

Steam pressure: Not determined

Density: Not determined

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Not determined

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not determined.

kinematic: Not determined.

9.2 Other information: No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No information known.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known

**10.5 Incompatible materials:**

Oxidizing agents

**10.6 Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity:**

Fatal if inhaled.

**LD/LC50 values that are relevant for classification:**

Methanol (CAS# 67-56-1)

ORL-RAT LD50: 5628 MG/KG

ORL-MUS LD50: 7300 MG/KG

SKN-RBT LD50: 15800 MG/KG

ORL-HMN LDLo: 143 MG/KG

<b>Skin irritation or corrosion:</b>	Causes skin irritation.
<b>Eye irritation or corrosion:</b>	Causes serious eye irritation.
<b>Sensitization:</b>	No sensitizing effect known.
<b>Germ cell mutagenicity:</b>	No effects known.
<b>Carcinogenicity:</b>	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
<b>Reproductive toxicity:</b>	No effects known.
<b>Specific target organ system toxicity - repeated exposure:</b>	No effects known.
<b>Specific target organ system toxicity - single exposure:</b>	May cause respiratory irritation.
<b>Aspiration hazard:</b>	No effects known.
<b>Additional toxicological information:</b>	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.



**SECTION 12: Ecological information**

<b>12.1 Toxicity</b>	No further relevant information available.
<b>Aquatic toxicity:</b>	No further relevant information available.
<b>12.2 Persistence and degradability</b>	No further relevant information available.
<b>12.3 Bioaccumulative potential</b>	No further relevant information available.
<b>12.4 Mobility in soil</b>	No further relevant information available.
<b>Additional ecological information:</b>	Do not allow material to be released to the environment without proper governmental permits.
<b>General notes:</b>	Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Avoid transfer into the environment.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>PBT:</b>	Not applicable.
<b>vPvB:</b>	Not applicable.
<b>12.6 Other adverse effects</b>	No further relevant information available.

**SECTION 13: Disposal considerations**

<b>13.1 Waste treatment methods</b>	Hand over to disposers of hazardous waste.
<b>Recommendation</b>	Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal.
<b>Uncleaned packagings:</b>	
<b>Recommendation:</b>	Disposal must be made according to official regulations.

**SECTION 14: Transport information**

<b>UN-Number</b>	UN1993
<b>ADR, IMDG, IATA</b>	
<b>14.2 UN proper shipping name</b>	1993 FLAMMABLE LIQUID, N.O.S. , special provision 640D (methanol)
<b>ADR</b>	FLAMMABLE LIQUID, N.O.S. (methanol)
<b>IMDG, IATA</b>	
<b>14.3 Transport hazard class(es)</b>	
<b>ADR</b>	
	
<b>Class</b>	3 (F1) Flammable liquids.
<b>Label</b>	3
<b>IMDG, IATA</b>	
	
<b>Class</b>	3 Flammable liquids.
<b>Label</b>	3
<b>Packing group</b>	II
<b>ADR, IMDG, IATA</b>	
<b>14.5 Environmental hazards:</b>	Not applicable.
<b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
<b>Kemler Number:</b>	33
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Excepted quantities (EQ):</b>	E2
<b>Limited quantities (LQ)</b>	1L
<b>Transport category</b>	2
<b>Tunnel restriction code</b>	D/E
<b>UN "Model Regulation":</b>	UN1993, FLAMMABLE LIQUID, N.O.S. , special provision 640D (methanol), 3, II

**SECTION 15: Regulatory information**

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>Australian Inventory of Chemical Substances</b>	Substance is listed.
<b>Standard for the Uniform Scheduling of Drugs and Poisons</b>	Substance is not listed.
<b>National regulations</b>	
<b>Information about limitation of use:</b>	Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals.
<b>Water hazard class:</b>	Water hazard class 1 (Self-assessment): slightly hazardous for water.
<b>Other regulations, limitations and prohibitive regulations</b>	
<b>ELINCS (European List of Notified Chemical Substances)</b>	Substance is not listed.

**Substances of very high concern (SVHC)  
according to REACH, Article 57  
REACH - Pre-registered substances  
15.2 Chemical safety assessment:**

Substance is not listed.  
Substance is listed.  
A Chemical Safety Assessment has not been carried out.

***SECTION 16: Other information***

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

DE/E