



艾柯實業有限公司

AQUACHEM INDUSTRIAL LIMITED

Ganjiaxiang, Qixiashan, Qixia district, Nanjing, Jiangsu, P.R. China, 210033

## MATERIAL SAFETY DATA SHEET

Revision Date 20-Oct-2015

Revision Number 2

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

Product Description: 1,2,4-Trimethyl Benzene

Cat No. 140090000; 140090010; 140090025

Synonyms: Pseudocumene

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

Recommended Use Laboratory chemicals

Uses advised against No Information available

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

##### Company

Aquachem Industrial Limited

Ganjiaxiang, Qixiashan, Qixia district, Nanjing, Jiangsu, P.R. China, 210033

E-mail address: [info@aquachemi.com](mailto:info@aquachemi.com)

#### Emergency Telephone Number

For information call: +86-25-84353911

### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture REGULATION (EC) No 1272/2008

Acute Inhalation Toxicity - Vapors	Category 4
Skin Corrosion / irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Specific target organ systemic toxicity (single exposure)	Category 3
Chronic aquatic toxicity	Category 2
Flammable liquids.	Category 3

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

For the full text of the R phrases mentioned in this Section, see Section 16

Symbol(s) Xn - Harmful

N - Dangerous for the environment R -phrase(s) R10 -

Flammable

R20 - Harmful by inhalation **Risk Combination Phrases** R36/37/38 - Irritating to eyes, respiratory system and skin

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

## 2. HAZARDS IDENTIFICATION

### Label Elements

Skin Corrosion/Irritation Category 3



### **Hazard Statements**

H315 - Causes skin irritation H332 - Harmful if inhaled H411 - Toxic to aquatic life with long lasting effects H319 - Causes serious eye irritation H335 - May cause respiratory irritation H226 - Flammable liquid and vapor

### **Precautionary Statements - EU (§28, 1272/2008)**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P273 - Avoid release to the environment P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P280 - Wear protective gloves/protective clothing/eye protection/face protection P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

### **Other Hazards**

No information available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	CAS-No	Weight %
1,2,4-Trimethyl Benzene	202436-9	95-63-6	99.0 min
1,3,5-Trimethyl Benzene	203-604-4	108-67-8	0.5 max
2-Ethyl toluene	210-255-1	611-14-3	0.4 max

For the full text of the R phrases mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### **Description of first aid measures**

#### **Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Obtain medical attention

#### **Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Obtain medical attention

#### **Ingestion**

Do not induce vomiting Clean mouth with water Get medical attention

#### **Inhalation**

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Obtain medical attention

#### **Notes to Physician**

Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media Suitable Extinguishing Media

Water spray Carbon dioxide (CO<sub>2</sub>) Dry chemical Use water spray to cool unopened containers chemical foam

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

No information available.

### Special hazards arising from the substance or mixture

Flammable Vapors may travel to source of ignition and flash back Containers may explode when heated

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

### Environmental precautions

Prevent further leakage or spillage if safe to do so

### Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust) Keep in suitable and closed containers for disposal Remove all sources of ignition Use spark-proof tools and explosion-proof equipment Provide adequate ventilation Do not let this chemical enter the environment

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid contact with skin and eyes Do not breathe dust Do not breathe vapors or spray mist Take precautionary measures against static discharges Do not ingest Use only in area provided with appropriate exhaust ventilation Use explosion-proof equipment Use only non-sparking tools

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place Keep container tightly closed Keep away from heat and sources of ignition Flammables area

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

### Exposure limits

### Component

1,2,4-Trimethyl Benzene

European Union	The United Kingdom	France	Belgium	Spain
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		VME: 100 mg/m <sup>3</sup> VME: 20 ppm VLCT: 250 mg/m <sup>3</sup> VLCT: 50 ppm		VLA-ED: 20 ppm VLA- ED: 100 mg/m <sup>3</sup>
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### Component

1,2,4-Trimethyl Benzene

Italy	Portugal	The Netherlands	Finland	Denmark
TWA: 100 mg/m <sup>3</sup> TWA: 20 ppm		STEL: 200 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup>	TWA: 100 mg/m <sup>3</sup> TWA: 20 ppm	TWA: 100 mg/m <sup>3</sup> TWA: 20 ppm

### Component

1,2,4-Trimethyl Benzene

Austria	Switzerland	Poland	Norway	Ireland
STEL: 30 ppm STEL: 150 mg/m <sup>3</sup> MAK: 20 ppm MAK: 100 mg/m <sup>3</sup>		NDSch: 170 mg/m <sup>3</sup> NDS: 100 mg/m <sup>3</sup>		TWA: 100 mg/m <sup>3</sup> TWA: 20 ppm

**Derived No Effect Level (DNEL)**

**No information available.**

**Predicted No Effect Concentration**

**No information available.**

**(PNEC)**

### Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

### Personal protective equipment

**Eye Protection** Goggles

**Hand Protection** Protective gloves

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure



**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice **Environmental exposure controls** No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State** Liquid

**Appearance** Colorless

**odor** aromatic

**pH** No information available.

**Vapor Pressure** 7 mmHg @ 44.4 °C

**Vapor Density** 4.15 (Air = 1.0)

**Boiling Point/Range** 168°C / 334.4°F @ 760 mmHg

**Melting Point/Range** -44°C / -47.2°F

**Flash Point** 48°C / 118.4°F

**Explosion Limits****Lower** 0.9**Upper** 6.4**Water Solubility** Insoluble**Specific Gravity** 0.860**Molecular Formula** C9 H12**Molecular Weight** 120.19**10. STABILITY AND REACTIVITY****Reactivity Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions****Hazardous Polymerization** Hazardous polymerization does not occur. **Hazardous Reactions** . No information available.**Conditions to Avoid**

Keep away from open flames, hot surfaces and sources of ignition, Incompatible products.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).**11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity Product Information** No acute toxicity information is available for this product **Component****Information****Component**

1,2,4-Trimethyl Benzene

**Chronic Toxicity****Carcinogenicity** There are no known carcinogenic chemicals in this product**Sensitization** No information available.**Mutagenic Effects** No information available**Reproductive Effects** No information available.**Developmental Effects** No information available.**Target Organs** No information available.**Other Adverse Effects** See actual entry in RTECS for complete information**Endocrine Disruptor Information** None known

LD50 Oral	LD50 Dermal	LC50 Inhalation
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3400 mg/kg ( Rat )	3160 mg/kg ( Rabbit )	18 g/m <sup>3</sup> ( Rat ) 4 h
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## 12. ECOLOGICAL INFORMATION

### Toxicity Ecotoxicity effects

Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,2,4-Trimethyl Benzene		7.19-8.28 mg/L LC50 96 h		6.14 mg/L EC50 = 48 h

### Persistence and degradability

No information available

### Bioaccumulative potential

No information available.

Component	Log Pow
1,2,4-Trimethyl Benzene	3.63

### Mobility in soil Results of PBT and vPvB assessment

Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

<b>Waste from Residues / Unused Products</b>	Dispose of in accordance with local regulations
<b>Contaminated Packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal

## 14. TRANSPORT INFORMATION

### IMDG/IMO

**UN-No** 3295  
**Hazard Class** 3  
**Packing Group** III  
**Proper Shipping Name** HYDROCARBONS, LIQUID, N.O.S.

### ADR

**UN-No** 3295  
**Hazard Class** 3  
**Packing Group** III  
**Proper Shipping Name** HYDROCARBONS, LIQUID, N.O.S.

### IATA

**UN-No** 3295  
**Hazard Class** 3

Packing Group III

Proper Shipping Name HYDROCARBONS, LIQUID, N.O.S.

## 15. REGULATORY INFORMATION

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

#### International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
1,2,4-Trimethyl Benzene	202-436-9	-		X	X	-	X	X	X	X	KE-34410 X

**Legend TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory Lists

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

**AICS** - Inventory of Chemical Substances

**KECL** - Existing and Evaluated Chemical Substances

### Chemical Safety Assessment

## 16. OTHER INFORMATION

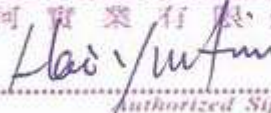
### Text of R phrases mentioned in Section 2-3

R10 - Flammable R20 - Harmful by inhalation R36/37/38 - Irritating to eyes, respiratory system and skin R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revision Date 20-Oct-2015

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End of Safety Data Sheet

For and on behalf of  
**AQUACHEM INDUSTRIAL LIMITED**  
艾柯實業有限公司  
  
.....  
Authorized Signature(s)