

# Safety Data Sheet

Product name: trimethylbenzene

CAS No.: 25551-13-7

Prepared in accordance with GB/T 16483, GB/T 17519

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

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### >Product identifier

- Product name: trimethylbenzene
- CBnumber: CB9935987
- CAS: 25551-13-7
- EINECS Number: 247-099-9
- Synonyms: trimethylbenzenes,Benzene, trimethyl-

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

- Relevant identified uses: For R&D use only. Not for medicinal, household or other use.
- Uses advised against: none

### >Company Identification

- Company: Linyi Tuohui New Materials Co., Ltd.
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## SECTION 2: Hazards identification

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### >Classification of the substance or mixture

Flammable liquids, Category 3

Acute toxicity - Category 4, Oral

Acute toxicity - Category 4, Dermal

Skin irritation, Category 2

Eye irritation, Category 2

## >Label elements

### Pictogram(s)



- Signal word

Warning

### Hazard statement(s)

H226 Flammable liquid and vapour

H302+H312 Harmful if swallowed or in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

### Precautionary statement(s)

#### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

#### Response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

P370+P378 In case of fire: Use ... to extinguish.

P301+P317 IF SWALLOWED: Get medical help.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P317 Get medical help.

P321 Specific treatment (see ... on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P332+P317 If skin irritation occurs: Get medical help.

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

### **Storage**

P403+P235 Store in a well-ventilated place. Keep cool.

### **Disposal**

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### **>Other hazards**

no data available

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

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### **>Substance**

- Product name: trimethylbenzene
- Synonyms: trimethylbenzenes, Benzene, trimethyl-
- CAS: 25551-13-7
- EC number: 247-099-9
- MF: C<sub>9</sub>H<sub>12</sub>
- MW: 120.19

## **SECTION 4: First aid measures**

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

#### **If inhaled**

Fresh air, rest. Refer for medical attention.

#### **Following skin contact**

Remove contaminated clothes. Rinse skin with plenty of water or shower.

#### **Following eye contact**

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

### **Following ingestion**

Rinse mouth. Do NOT induce vomiting. Refer for medical attention .

#### **>Most important symptoms and effects, both acute and delayed**

no data available

#### **>Indication of any immediate medical attention and special treatment needed**

no data available

## **SECTION 5: Firefighting measures**

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### **>Extinguishing media**

Use dry chemical, carbon dioxide or alcohol-resistant foam.

### **>Specific Hazards Arising from the Chemical**

Flammable. Above 44°C explosive vapour/air mixtures may be formed.

### **>Advice for firefighters**

Use alcohol-resistant foam, dry powder, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

## **SECTION 6: Accidental release measures**

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

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations. Do NOT wash away into sewer.

### **>Environmental precautions**

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

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

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

## SECTION 7: Handling and storage

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### >Precautions for safe handling

NO open flames, NO sparks and NO smoking. Above 44°C use a closed system, ventilation and explosion-proof electrical equipment. Prevent build-up of electrostatic charges (e.g., by grounding). Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Fireproof. Separated from strong oxidants. Well closed. Keep in a well-ventilated room.

## SECTION 8: Exposure controls/personal protection

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### >Control parameters

#### Occupational Exposure limit values

TLV: 25 ppm as TWA.MAK: 100 mg/m<sup>3</sup>, 20 ppm; peak limitation category: II(2); pregnancy risk group: C

#### Biological limit values

no data available

### >Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### >Individual protection measures

#### Eye/face protection

Wear safety spectacles.

#### Skin protection

Protective gloves.

#### Respiratory protection

Use ventilation, local exhaust or breathing protection.

#### Thermal hazards

no data available

## SECTION 9: Physical and chemical properties

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### >Information on basic physicochemical properties

- Physical stateColorless liquid
- Colour  
no data available
- Odour  
no data available
- Melting point/freezing point  
-25 - 45°C
- Boiling point or initial boiling point and boiling range  
176.8°C at 760mmHg
- Flammability  
no data available
- Lower and upper explosion limit/flammability limit  
no data available
- Flash point  
53.1°C
- Auto-ignition temperature  
470-550°C
- Decomposition temperature  
no data available
- pH  
no data available
- Kinematic viscosity  
no data available
- Solubility  
Solubility in water: very poor
- Partition coefficient n-octanol/water  
3.4/3.8
- Vapour pressure  
1.45mmHg at 25°C

- Density and/or relative density  
0.869g/cm<sup>3</sup>
- Relative vapour density  
no data available
- Particle characteristics  
no data available

## SECTION 10: Stability and reactivity

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### >Reactivity

no data available

### >Chemical stability

### >Possibility of hazardous reactions

Decomposes on burning. This produces toxic and irritating fumes. Reacts violently with strong oxidants. This generates fire and explosion hazard.

### >Conditions to avoid

### >Incompatible materials

### >Hazardous decomposition products

no data available

## SECTION 11: Toxicological information

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### >Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

### >Skin corrosion/irritation

no data available

**>Serious eye damage/irritation**

**>Respiratory or skin sensitization**

**>Germ cell mutagenicity**

**>Carcinogenicity**

**>Reproductive toxicity**

**>STOT-single exposure**

The substance is irritating to the eyes, skin and respiratory tract. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis. The substance may cause effects on the central nervous system.

**>STOT-repeated exposure**

The substance defats the skin, which may cause dryness or cracking. Repeated or prolonged inhalation may cause effects on the lungs. This may result in chronic bronchitis. The substance may have effects on the blood and central nervous system. See Notes.

**>Aspiration hazard**

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C; on spraying or dispersing, however, much faster.

## **SECTION 12: Ecological information**

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**>Toxicity**

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

**>Persistence and degradability**

no data available

**>Bioaccumulative potential**

**>Mobility in soil**

**>Toxics Screening Level**

The acute initial threshold screening level (ITSL) for all trimethylbenzene (TMB) isomers combined is 1200 µg/m<sup>3</sup> with 8-hr averaging time. The chronic ITSL for all TMB isomers combined is 185 µg/m<sup>3</sup> with annual averaging time.

**>Other adverse effects**

no data available

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**SECTION 13: Disposal considerations**

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**>Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

**Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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**SECTION 14: Transport information**

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**>UN Number**

ADR/RID: UN2325 (For reference only, please check.)

IMDG: UN2325 (For reference only, please check.)

IATA: UN2325 (For reference only, please check.)

**>UN Proper Shipping Name**

ADR/RID: 1,3,5-TRIMETHYLBENZENE (For reference only, please check.)

IMDG: 1,3,5-TRIMETHYLBENZENE (For reference only, please check.)

IATA: 1,3,5-TRIMETHYLBENZENE (For reference only, please check.)

**>Transport hazard class(es)**

ADR/RID: 3 (For reference only, please check.)

IMDG: 3 (For reference only, please check.)

IATA: 3 (For reference only, please check.)

**>Packing group, if applicable**

ADR/RID: III (For reference only, please check.)

IMDG: III (For reference only, please check.)

IATA: III (For reference only, please check.)

### **>Environmental hazards**

ADR/RID: No

IMDG: No

IATA: No

### **>Special precautions for user**

no data available

### **>Transport in bulk according to IMO instruments**

no data available

## **SECTION 15: Regulatory information**

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### **>Safety, health and environmental regulations specific for the product in question**

#### **European Inventory of Existing Commercial Chemical Substances (EINECS)**

Listed.

#### **EC Inventory**

#### **United States Toxic Substances Control Act (TSCA) Inventory**

#### **China Catalog of Hazardous chemicals 2015**

Not Listed.

#### **New Zealand Inventory of Chemicals (NZIoC)**

#### **PICCS**

#### **Vietnam National Chemical Inventory**

#### **IECSC**

#### **Korea Existing Chemicals List (KECL)**

Listed.

## **SECTION 16: Other information**

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### **>Abbreviations and acronyms**

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods

- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

## **>References**

- IPCS - The International Chemical Safety Cards (ICSC), website:  
<http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website:  
<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:  
<http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website:  
<http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

## **>Other Information**

Use of alcoholic beverages enhances the harmful effect. Depending on the degree of exposure, periodic medical examination is indicated. See ICSC 1155 1,3,5-Trimethylbenzene (Mesitylene); ICSC 1362 1,2,3-Trimethylbenzene (Hemimellitene); ICSC 1433 1,2,4-Trimethylbenzene (Pseudocumene). 1,3,5-Trimethylbenzene (Mesitylene) is classified as a marine pollutant.