

# OTTO CHEMIE PVT LTD

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ISO 9001: 2015

## MATERIAL SAFETY DATA SHEET

### Identification

1.1GHS Product identifier  
tert-Butyl methyl ether, 99%  
Code B 2461

### 2.Hazard identification

2.1Classification of the substance or mixture  
Flammable liquids, Category 2  
Skin irritation, Category 2  
2.2GHS label elements, including precautionary statements  
Pictogram(s)



### Signal word

Danger

### Hazard statement(s)

H225 Highly flammable liquid and vapour  
H315 Causes skin 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.  
P264 Wash ... thoroughly after handling.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P370+P378 In case of fire: Use ... to extinguish.  
P302+P352 IF ON SKIN: Wash with plenty of water/...

### Response

P321 Specific treatment (see ... on this label).  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.

### Storage

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

### Disposal

P501 Dispose of contents/container to ...

2.3Other hazards which do not result in classification  
none

### 3.Composition/information on ingredients

#### 3.1Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
methyl tert-butyl ether	methyl tert-butyl ether	1634-04-4	none	100%

#### 4. First-aid measures

##### 4.1 Description of necessary first-aid measures

###### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

###### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

###### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

###### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

###### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

##### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

#### 5. Fire-fighting measures

##### 5.1 Extinguishing media

###### Suitable extinguishing media

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

##### 5.2 Specific hazards arising from the chemical

no data available

##### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 6. Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

##### 6.2 Environmental precautions

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

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

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### 7. Handling and storage

##### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

#### 8. Exposure controls/personal protection

##### 8.1 Control parameters

###### Occupational Exposure limit values

no data available

###### Biological limit values

no data available

##### 8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### 8.3 Individual protection measures, such as personal protective equipment (PPE)

###### Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

###### Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

###### Respiratory protection

Wear dust mask when handling large quantities.

###### Thermal hazards

no data available

#### 9. Physical and chemical properties

##### Physical state

clear liquid

##### Colour

no data available

##### Odour

no data available

##### Melting point/ freezing

273\00b0C(lit.)

point  
Boiling point or initial boiling point and boiling range 55-56°C(lit.)  
Flammability no data available  
Lower and upper explosion limit / flammability limit no data available  
Flash point -33°C  
Auto-ignition temperature 373.89°C  
Decomposition temperature no data available  
pH no data available  
Kinematic viscosity no data available  
Solubility In water:51 g/L (20 °C)  
Partition coefficient n-octanol/water (log value) no data available  
Vapour pressure 4.05 psi ( 20 °C)  
Density and/or relative density 0.74g/mL 25°C(lit.)  
Relative vapour density 3.1 (vs air)  
Particle characteristics no data available

#### 10.Stability and reactivity

##### 10.1Reactivity

no data available

##### 10.2Chemical stability

Stable under recommended storage conditions.

##### 10.3Possibility of hazardous reactions

no data available

##### 10.4Conditions to avoid

no data available

##### 10.5Incompatible materials

no data available

##### 10.6Hazardous decomposition products

no data available

#### 11.Toxicological information

##### Acute toxicity

Oral: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

#### 12.Ecological information

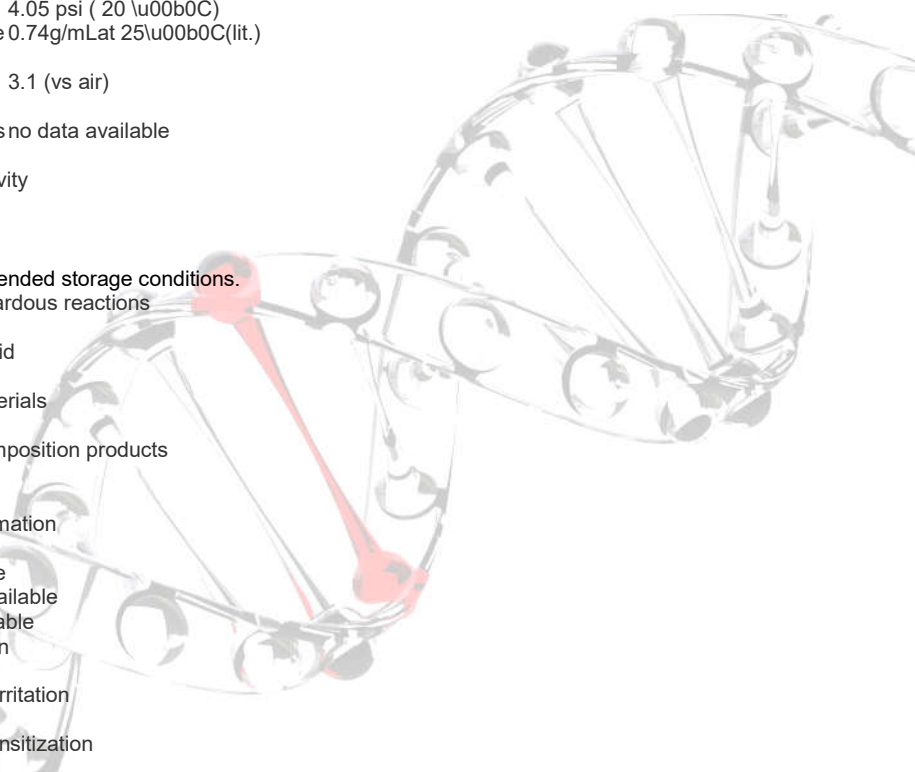
##### 12.1Toxicity

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



## 12.2 Persistence and degradability

no data available

## 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Other adverse effects

no data available

## 13. Disposal considerations

### 13.1 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.

## 14. Transport information

### 14.1 UN Number

ADR/RID: UN2398      IMDG: UN2398      IATA: UN2398

### 14.2 UN Proper Shipping Name

ADR/RID: METHYL tert-BUTYL ETHER

IMDG: METHYL tert-BUTYL ETHER

IATA: METHYL tert-BUTYL ETHER

### 14.3 Transport hazard class(es)

ADR/RID: 3      IMDG: 3      IATA: 3

### 14.4 Packing group, if applicable

ADR/RID: II      IMDG: II      IATA: II

### 14.5 Environmental hazards

ADR/RID: no      IMDG: no      IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

## 15. Regulatory information

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

Chemical name	Common names and synonyms	CAS number	EC number
methyl tert-butyl ether	methyl tert-butyl ether	1634-04-4	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.

## Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.