



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product Name Methyl tert-Butyl Ether  
 CAS No. 1634-04-4  
 EC No. 216-653-1  
 REACH Registration No. 01-2119452786-27-xxxx

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

Identified Use(s) Not known.  
 Uses Advised Against Not known.

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

Manufacturer  
 Company Identification Rathburn Chemicals Ltd  
 Address of Manufacturer 6 Caberston Road  
 Walkerburn  
 Peeblesshire  
 Scotland  
 Postal code EH43 6AU  
 Telephone: 00 (44) (0) 1 896 870 651  
 Fax 00 (44) (0) 1 896 870 633  
 E-mail sales@rathburn.co.uk  
 Office hours 09.00-17.00

Supplier  
 Company Identification Rathburn Chemicals Ltd  
 Address of Supplier 6 Caberston Road  
 Walkerburn  
 Peeblesshire  
 Scotland  
 Postal code EH43 6AU  
 Telephone: 00 (44) (0) 1 896 870 651  
 Fax 00 (44) (0) 1 896 870 633  
 E-mail sales@rathburn.co.uk  
 Office hours 09.00-17.00

### 1.4 Emergency telephone number

Emergency Phone No. 00 (44) (0) 1 896 870 651 or 07807 520501  
 Contact Roddy Stoddart

## 2. SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 2 :Highly flammable liquid and vapour.  
 Skin Irrit. 2 :Causes skin irritation.

### 2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)  
 Product Name Methyl tert-Butyl Ether

Hazard Pictogram(s)



GHS02



GHS07

Signal Word(s)

Danger

Hazard Statement(s)

H225: Highly flammable liquid and vapour.  
 H315: Causes skin irritation.

Precautionary Statement(s)

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



P233: Keep container tightly closed.  
 P242: Use only non-sparking tools.  
 P243: Take precautionary measures against static discharge.  
 P264: Wash hands and exposed skin thoroughly after handling.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P332+P313: If skin irritation occurs: Get medical advice/attention.  
 P362+P364: Take off contaminated clothing and wash it before reuse.  
 P403+P235: Store in a well-ventilated place. Keep cool.  
 P501: Dispose of contents in accordance with local, state or national legislation.

## 2.3 Other hazards

None known.

## 2.4 Additional Information

For full text of H/P Statements see section 16.

# 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
tert-butyl methyl ether MTBE 2-methoxy-2-methylpropane	1634-04-4	216-653-1 01-2119452786-27-xxxx	100	Flam. Liq. 2 H225 Skin Irrit. 2 H315	GHS02 GHS07

## 3.2 Mixtures

Not applicable.

# 4. SECTION 4: FIRST AID MEASURES

## 4.1 Description of first aid measures

Inhalation  
 Skin Contact  
 Eye Contact  
 Ingestion

Treat symptomatically.  
 Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see Medical Advice on this label).  
 Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Treat symptomatically.  
 Treat symptomatically.

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

Causes burns.

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

Specific treatment (see Medical Advice on this label). Treat symptomatically.

# 5. SECTION 5: FIREFIGHTING MEASURES

## 5.1 Extinguishing media

Suitable Extinguishing media  
 Unsuitable extinguishing media

As appropriate for surrounding fire.  
 Water jet spray

## 5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. May decompose in a fire, giving off toxic and irritant vapours.

## 5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

# 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Wear suitable protective clothing, gloves and eye/face protection.



## 6.2 Environmental precautions

This material and its container must be disposed of in a safe way.

## 6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Use vacuum equipment for collecting spilt materials, where practicable. Containers must not be punctured or destroyed by burning, even when empty.

## 6.4 Reference to other sections

See Also Section 8, 13.

## 7. SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling.

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

Store in a well-ventilated place. Keep cool.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

### 7.3 Specific end use(s)

Not known.

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Methyl-tert-butyl-ether	1634-04-4	50	183.5	100	367	
Tertiary-butyl-methyl- ether	1634-04-4	50	183.5	100	367	
Tertiary-butyl-methyl ether	1634-04-4	50	183.5	100	367	IOELV

Region  
Europe  
United Kingdom

Source  
EU Occupational Exposure Limits  
Workplace Exposure Limits (WEL)

Remark  
IOELV

Notes  
IOELV: Indicative Occupational Exposure Limit Value

### 8.2 Exposure controls

#### 8.2.1. Appropriate engineering controls

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

#### 8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection Normally no personal respiratory protection is necessary.



Thermal hazards None known.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Liquid.
	Colour : Colourless
Odour	Not known.
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	55-56C
Flash Point	-33C
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	0.74g/cm3
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Not known.
	Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

### 9.2 Other information

None.

## 10. SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

None anticipated.

### 10.2 Chemical Stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

### 10.4 Conditions to avoid

Avoid friction, sparks, or other means of ignition.

### 10.5 Incompatible materials

Not known.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Low acute toxicity



Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Non-irritant
Skin sensitization data	Not classified
Respiratory sensitization data	Not classified
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Not classified
Lactation	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified
<b>11.2 Other information</b>	Not known.

## 12. SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

### 12.2 Persistence and Degradation

Not known.

### 12.3 Bioaccumulative potential

Not known.

### 12.4 Mobility in soil

Not known.

### 12.5 Results of PBT and vPvB assessment

Not known.

### 12.6 Other adverse effects

Not known.

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.

### 13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

## 14. SECTION 14: TRANSPORT INFORMATION

### 14.1 UN number

UN No. 2398

### 14.2 UN proper shipping name

UN proper shipping name METHYL tert-BUTYL ETHER

### 14.3 Transport hazard class(es)

ADR/RID Class	3
IMDG Class	3
IMDG EMS	Not available
ICAO/IATA	
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y341
Passenger and Cargo Aircraft Limited Quantities Max net Qty	1L
Passenger and Cargo Aircraft Packing Instructions	353
Passenger and Cargo Aircraft Max net	5L



Qty	
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty	60L
Special Provisions	Not applicable
Emergency Response Guidebook (ERG) Code	3L
ADR Classification Code	F1
ADR HIN	33
ADR Transport Category	2
Tunnel Restriction Code	D/E
Emergency Action Code	•3YE
APP Advice on Additional Personal Protection (APP)	Not applicable
<b>14.4 Packing group</b>	
Packing group	II
Labels	3



Special Provisions	Not applicable
Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	Not applicable
Mixed Packing Instructions for Packages	MP19

**14.5 Environmental hazards**

Environmental hazards	Not classified as a Marine Pollutant.
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**14.6 Special precautions for user**

Special precautions for user	Not known.
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**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP1
Tank Code for Tanks	LGBF
Special Provisions for Tanks	Not applicable
Vehicle for Tank Carriage	FL
Special Provisions for Carriage - Packages	Not applicable
Special Provisions for Carriage - Bulk	Not applicable
Special Provisions for Carriage - Loading, Unloading and Handling	Not applicable
Special Provisions for Carriage - Operation	S2 S20

**15. SECTION 15: REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation

REACH: ANNEX XIV list of substances subject to authorisation

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Community Rolling Action Plan (CoRAP)

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of

tert-butyl methyl ether MTBE 2-methoxy-2-methylpropane (1634-04-4)

Not listed

Not listed

Not listed

Not listed

Not listed

Not listed

Not listed

Not listed



hazardous chemicals

**National regulations**

Other

**15.2 Chemical Safety Assessment**

Not known.

A REACH chemical safety assessment has not been carried out.

**16. SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements:

**LEGEND**

Hazard Pictogram(s)



GHS02



GHS07

Hazard Statement(s)

H225: Highly flammable liquid and vapour.

H315: Causes skin irritation.

Precautionary Statement(s)

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

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P264: Wash hands and exposed skin thoroughly after handling.

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

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

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

P321: Specific treatment (see Medical Advice on this label).

P332+P313: If skin irritation occurs: Get medical advice/attention.

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

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

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

P501: Dispose of contents in accordance with local, state or national legislation.

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS : Chemical Abstracts Service

CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organization

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity



UN : United Nations

vPvB : very Persistent and very Bioaccumulative

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