

## 1. Product and Company Identification

www.rxmarine.com

Product Name RXSOL-60-6605-661  
Product Type tertBUTYL METHYL ETHER 99%  
Revised date

### Company Details:

RX MARINE INTERNATIONAL  
105, A wing , BSEL , TECH PARK.  
VASHI ,NEW BOMBAY 400703 INDIA

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Email [mail@rxmarine.com](mailto:mail@rxmarine.com)

## 2. Composition / Information on ingredients

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3.1. Substance: tert-BUTYL METHYL ETHER 99%

CAS No : 1634-04-4

Substance.

Contains no other components or impurities which will influence the classification of the product.

## 3. Hazards Identification

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3.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, H225 Category 2 Skin corrosion/irritation, H315

Category 2 Full text of classification categories and H statements : see section 16

Classification according to Directive

67/548/EEC or 1999/45/EC F; R11 Xi; R38 Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

3.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Extra labelling to display Extra classification(s) to display

Symbol(s) : Xi : Irritation Highly flammable

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R Phrase(s) : R11: Highly flammable. R38: Irritating to skin.

S Phrase(s) : S9: keep container in a well ventilated place.

S16: Keep away from source of ignition-No smoking.

S24: Avoid contact with skin. Hazard pictograms

Signal word : Danger

Hazard statements : H225 - Highly flammable liquid and vapour

H315 - Causes skin irritation Precautionary statements : P210 -

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

3.3. Other hazards

No additional information available.

## 4. First Aid Measures

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### 4.1. Description of first aid measures

First-aid measures after inhalation : Give oxygen or artificial respiration if necessary.

Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water. Take off contaminated clothing.

First-aid measures after eye contact : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. If you feel unwell, seek medical advice.

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

Symptoms/injuries after skin contact : Causes skin irritation.

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

Treat symptomatically.

## 5. Fire-fighting Measures

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### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

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Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : May form flammable/explosive vapour-air mixture.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without

proper protective equipment, including respiratory protection.

## 6. Accidental Release Measures

[www.rxmarine.com](http://www.rxmarine.com)

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

General measures : Remove ignition sources. Use special care to avoid

static electric charges. No naked lights. No smoking.

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers.

#### 6.4. Reference to other sections

No additional information available

## 7. Handling and Storage

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#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours

are flammable. Precautions for safe handling : Avoid contact with skin and eyes. Use only non-sparking tools.

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Keep away from sources of ignition - No smoking. Do not breathe vapours.

Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Incompatible materials : Heat sources.

#### 7.3. Specific end use(s)

No additional information available

## 8. Exposure controls and personal protection

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#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection : Protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

## 9. Physical and chemical properties

[www.rxmarine.com](http://www.rxmarine.com)

#### 9.1. Information on basic physical and chemical properties

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : -110 °C

Freezing point : No data available

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Boiling point : 55 - 56 °C

Flash point : -33 °C

Auto-ignition temperature : 374 °C

Decomposition temperature : No data available

Flammability (solid, gas) : Flammable Highly flammable liquid

and vapour Vapour pressure : 279.2 hPa at 20°C

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : 0.74 g/cm<sup>3</sup> Relative gas density : 0.74 at 25 °C

Solubility : Water: Insoluble in water

Log Pow : 1.77

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidising properties : No data available

Explosive limits : 0.016 - 0.151 vol %

#### 9.2. Other information

No additional information available

## 10. Stability and reactivity

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#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

Open flame. Heat. Sparks.

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition

## 11. Toxicological information

[www.rxmarine.com](http://www.rxmarine.com)

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes

skin irritation. Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity

(single exposure) : Not classified

Specific target organ toxicity

(repeated exposure) : Not classified

Aspiration hazard : Not classified

## 12. Ecological information

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### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Log Pow 1.77

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

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## 12.6. Other adverse effects

No additional information available

## 13. Disposal considerations

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### 13.1. Waste treatment methods

Product/Packaging disposal Recommendations : Dispose of contents/container to ...

Additional information : Handle empty containers with care because residual vapours are flammable.

## 14. Transport information

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In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 2398

UN-No. (IMDG) : 2398

UN-No.(IATA) : 2398

UN-No.(ADN) : Not regulated

UN-No. (RID) : Not regulated

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : METHYL TERT-BUTYL ETHER Proper

Shipping Name (IMDG) : METHYL tert-BUTYL ETHER Proper Shipping Name

(IATA) : METHYL TERT-BUTYL ETHER Proper Shipping Name

(ADN) : Not regulated Proper Shipping Name

(RID) : Not regulated Transport document description

(ADR) : UN 2398 METHYL TERT-BUTYL ETHER, 3, II, (D/E)

Transport document description (IMDG) : UN 2398 METHYL tert-BUTYL ETHER, 3, II (

Transport document description (IATA) : UN 2398 METHYL TERT-BUTYL ETHER, 3, II

### 14.3. Transport hazard class(es)

ADR- Transport hazard class(es) (ADR) : 3

Danger labels (ADR) : 3

IMDG- Transport hazard class(es) (IMDG) : 3

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Danger labels (IMDG) : 3

IATA- Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3

ADN- Transport hazard class(es)

(ADN) : Not regulated RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport Classification code (ADR) : F1

Limited quantities (ADR) : 1L

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T7

Portable tank and bulk container special provisions (ADR) : TP1

Tank code (ADR) : LGBF Vehicle for tank carriage : FL

Transport category (ADR) : 2

Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number (Kemler No.) : 33

Orange plates : Tunnel restriction code (ADR) : D/E EAC code : 3YE

Transport by sea- Limited quantities (IMDG) : 1 L

Excepted quantities (IMDG) : E2

Packing instructions (IMDG) : P001 IBC

packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T7

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Tank special provisions (IMDG) : TP1

EmS-No. (Fire) : F-E EmS-No.

(Spillage) : S-D Stowage category (IMDG) : E

Flash point (IMDG) : below -18°C c.c. MFAG-No : 127

Air transport- PCA Excepted quantities (IATA) : E2 PCA

Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA packing instructions (IATA) : 353

PCA max net quantity (IATA) : 5L

CAO packing instructions (IATA) : 364

CAO max net quantity (IATA) : 60L

ERG code (IATA) : 3L

Inland waterway transport- Not regulated

Rail transport- Not regulated

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

Not applicable

## 15. Regulatory information

[www.rxmarine.com](http://www.rxmarine.com)

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions tert-BUTYL METHYL ETHER is not on the REACH Candidate List

tert-BUTYL METHYL ETHER is not on the REACH Annex XIV List

15.1.2. National regulations

Germany AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water

(Classification according to VwVwS, Annex 2; WGK No 1200)

12th Ordinance Implementing the Federal

Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

15.2. Chemical safety assessment

No additional information available

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## 16. Other information

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Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives

67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 Further information : None. In accordance with REACH

Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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