# Material Safety Data Sheet

**Tert BUTYL METHYL ETHER LR 99%** (RXSOL-60-6605-661)

## 1. Product and Company Identifaction

| | |
|---|---|
| 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

Stock Point : Mumbai, Kandla, Chennai, Visakhapatnam, Kolkata, Fujairah, Muscat Barka

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## 2. Composition / informationon ingredients

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

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
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

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

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

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

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.
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

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

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
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/cm³ 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

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 products May release flammable gases.

## 11. Toxicological information

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

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
12.6. Other adverse effects
No additional information available

## 13. Disposal considerations

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

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 ( -18°C c.c.)
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
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
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

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. BlmSchV (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

## 16. Other information

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
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