1. Product and Company Identifaction

www.rxmarine.com

Product Name RXSOL-60-6605-668

Product Type TETRA BUTYL AMMONIUM HYDROXIDE 25% IN METHANOL

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

Phone +91 22 27815541 / 42

Fax +91 22 2781 1318 :::AOH :0091 9821214367

Email <u>mail@rxmarine.com</u>

2. Composition / Information on ingredients

www.rxmarine.com

Substance / Preparation: Preparation.

Hazardous component(s): This product is hazardous.

Substance name Contents CAS No

TETRABUTYL AMMONIUM: > 50

HYDROXIDE 40% IN WATER Methanol: > 25

3. Hazards Identification

www.rxmarine.com

3.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification: T; R23/24/25-

R39/23/24/25

C; R35

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards: Specific Target Organ Toxicity - Single exposure - Category 1 -

Danger (CLP: STOT SE 1) H370

Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314

Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311

Acute toxicity, Inhalation - Category 3 - Danger (CLP: Acute Tox. 3) H331

Acute toxicity, Oral - Category 3 - Danger (CLP: Acute Tox. 3) H301

3.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s): T: Toxic

C: Corrosive

R Phrase(s): R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

R35: Causes severe burns.

R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation,

in contact with skin and if swallowed.

S Phrase(s): S4: Keep away from living quarters.

S24: Avoid contact with skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek

medical advice.

S28: After contact with skin, wash immediately with

S35: This material and its container must be disposed of in a safe way.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show

the label when possible).

S59: Refer to manufacturer/supplier for information on recovery/recycling.

Contains: TETRABUTYL AMMONIUM HYDROXIDE 40% IN WATER - Methanol

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms

Signal words: Danger

Hazard statements: H314: Causes severe skin burns and eye damage.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H331: Toxic if inhaled.

H370: Causes damage to organ.

Precautionary statements

Prevention: P280: Wear protective gloves, protective clothing, eye protection, face

protection.

P271: Use only outdoors or in a well-ventilated area.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

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

Response: P307+P311: IF EXPOSED: Call a POISON CENTER or doctor.

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

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position

comfortable for breathing.

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated

clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P361: Remove immediately all contaminated clothing.

Storage: P403+P233: Store in well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal considerations: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or

international regulation.

P501: Dispose of this material and its container to hazardous or special waste collection

point, in accordance with local, regional, national and/or international regulation.

3.3. Other hazards

Other hazards: The substance does not fulfil the criteria to be identified as PBT

substance or vPvB substance according to Annex XIII of Regulation REACH.

4. First Aid Measures

www.rxmarine.com

4.1. Description of first aid measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing.

Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

Skin contact: Wash contaminated clothing before reuse. Specific treatment (see on this

label). Immediately call a POISON CENTER or doctor. Wash with plenty of soap and

water. Remove/Take off immediately all contaminated clothing.

Eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse

cautiously with water for several minutes. Immediately call a POISON CENTER or doctor.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or

doctor. Specific treatment (see on this label).

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

Symptoms relating to use: Repeated exposure to this material can result in absorption

through skin causing significant health hazard. Danger of serious damage to health by

prolonged exposure through inhalation. Swallowing a small quantity of this material will

result in serious health hazard. Causes damage to organ. Causes severe skin burns and

eye damage.

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

General information: Never give anything by mouth to an unconscious person. If you

feel unwell, seek medical advice (show the label where possible). Call a POISON

CENTER or doctor. Specific treatment (see on this label).

5. Fire-fighting Measures

www.rxmarine.com

5.1. Extinguishing media

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

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

Surrounding fires: Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions, hazardous fumes will be

present. Thermal decomposition generates: Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire: Do not enter fire area without proper protective equipment,

including respiratory protection.

Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject)

fire-fighting water to enter environment.

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders: Equip cleanup crew with proper protection.

Ventilate area. Avoid breathing dust, fume, gas, mist, vapours, spray.

For non-emergency personnel: Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Notify

authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods: Soak up spills with inert solids, such as clay or diatomaceous earth

as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and Storage

www.rxmarine.com

7.1. Precautions for safe handling

Handling: Wash thoroughly after handling. Do not eat, drink or smoke when using this

product. Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas,

mist, vapours, spray. Avoid contact during pregnancy or while nursing.

Technical protective measures: Provide good ventilation in process area to prevent

formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Keep only in the original container in a cool, well ventilated place. Keep

container tightly closed.

Storage regulation: Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s): None.

8.1. Exposure controls

Personal protection

Personal protection: Avoid all unnecessary exposure.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory

equipment.

Where exposure through inhalation may occur from use, respiratory protection

equipment is recommended.

Hand protection : Wear protective gloves.

Skin protection : Wear suitable protective clothing.

2 Eye protection: Chemical goggles or face shield.

Others: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

Occupational Exposure Limits: Methanol: OEL (UK)-LTEL [ppm]: 200

Methanol: OEL (UK)-STEL [ppm]: 250

Methanol: ILV (EU) - 8 H - [mg/m³]: (260 Skin.)

Methanol: ILV (EU) - 8 H - [ppm]: (200 Skin.)

Methanol: HTP-värden - 8 H - [ppm]: 200

Methanol: HTP-värden - 15min - [ppm]: 250

 $Methanol: HTP-v\"{a}rden - 8~H - [mg/m^3]: 270$

Methanol: HTP-värden - 15min - [mg/m³]: 330

Methanol: NGV - [ppm]: 200

Methanol: NGV - $[mg/m^3]$: 250

Methanol: KTV - [ppm]: 250

Methanol: $KTV - [mg/m^3]: 350$

Methanol: VLA-ED [ppm]: 200

Methanol: VLA-ED [mg/m³]: 266

Methanol: VLA-EC [ppm]: 250

9. Physical and chemical properties

www.rxmarine.com

9.1. Information on basic physical and chemical properties

Physical state at 20 °C: Liquid..

Odour threshold: 100 ppm

pH value: No data available.

Melting point [°C]: -97.8°C

Decomposition point [°C]: N/A

Critical temperature [°C]: No data available.

Auto-ignition temperature [°C]: 455 deg C (851.00 deg F)

Flammability (solid, gas): Flammable.

Flash point [°C]: 11 °C - closed cup

Boiling point [°C]: 65°C

Initial boiling point [°C]: No data available.

Final boiling point [°C]: No data available.

Evaporation rate: N/A

Vapour pressure [20°C] : No data available.

Vapour pressure mm/Hg: N/A

Vapour density: 1,11

Density [g/cm3]: 0.8 - 0.83

Relative density, gas (air=1): N/A

Relative density, liquid (water=1): N/A

Solubility in water [% weight] : In water, material soluble.

Solubility in water: No data available.

Log Pow octanol / water at 20°C : No data available.

Solubility:>13

Viscosity at 40°C [mm2/s]: No data available.

9.2. Other information

Explosive properties: N/A

Explosion limits - upper [%] : No data available.

Explosion limits - lower [%]

Oxidising properties: No data available.

10. Stability and reactivity

www.rxmarine.com

10.1. Reactivity

Reactivity: Not established.

10.2. Chemical stability

Chemical stability: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Not established.

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid: Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products: Fumes. Carbon monoxide. Carbon dioxide.

Thermal decomposition generates: Corrosive vapours.

11. Toxicological information

www.rxmarine.com

11.1. Information on toxicological effects

Toxicity information: The product has been not fully tested. The calculated risk has

been done under the requirements of the EU regulations.

Acute toxicity

? Inhalation : Toxic if inhaled.

? Dermal: Toxic in contact with skin.

🛚 Ingestion : Toxic if swallowed.

Corrosion: Causes severe skin burns and eye damage.

Irritation: Based on available data, the classification criteria are not met.

Sensitization: Based on available data, the classification criteria are not met.

Mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Toxic for reproduction: Based on available data, the classification criteria are not met.

STOT-single exposure : Causes damage to organ. Causes damage to organ. Causes

damage to organ.

STOT-repeated exposure: Based on available data, the classification criteria are not

met.

Aspiration hazard: Based on available data, the classification criteria are not met.

12. Ecological information

www.rxmarine.com

12.1. Toxicity

Toxicity information: The product has been not fully tested. The calculated risk has

been done under the requirements of the EU regulations.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Not established.

12.4. Mobility in soil

Mobility in soil: Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be

identified as PBT substance or vPvB substance according to Annex XIII of Regulation

REACH.

12.6. Other adverse effects

Environmental precautions: Avoid release to the environment.

13. Disposal considerations

www.rxmarine.com

13.1. Waste treatment methods

General: Avoid release to the environment. Dispose in a safe manner in accordance with

local/national regulations. Dispose of this material and its container to hazardous or

special waste collection point, in accordance with local, regional, national and/or

international regulation.

Special precautions: Hazardous waste due to toxicity.

14. Transport information

www.rxmarine.com

14.1. Land transport (ADR-RID)

Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

UN N°: 2924

H.I. nr: 20110

ADR - Class: 3

Labelling - Transport : 3 : Flammable liquid. 8 : Corrosive substance.

ADR - Classification code: FC

ADR - Group: II

ADR - Packing instructions: P001

ADR - Limited Quantity: 1 L

ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of

category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

UN N°: 2924

IMO-IMDG - Class or division: 3: Flammable liquid. (8: Corrosive substance.)

IMO-IMDG - Packing group: II

IMO- IMDG - Packing instructions: P001

IMO-IMDG - Limited quantities: None

IMO-IMDG - Marine pollution: No

EMS-Nr: F-E S-C

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

UN N°: 2924

IATA - Class or division: 3: Flammable liquid. (8: Corrosive substance.)

IATA - Packing group: II

IATA - Passenger and Cargo Aircraft: ALLOWED

- Passenger and Cargo - Packing: 352

instruction

- Passenger and Cargo - Maximum : 1 L

Quantity/Packing

IATA - Cargo only: ALLOWED

- Cargo only - Packing instruction: 363

- Cargo only - Maximum Quantity/: 5 L

Packing

IATA - Limited Quantites: 0.5 L

ERG-Nr: 3CH

15. Regulatory information

www.rxmarine.com

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

substance or mixture

Safety, health and environmental: Ensure all national/local regulations are observed.

regulations/legislation specific for the substance or mixture

REACH Restrictions - Annex XVII: The components of this product are not subject to

restrictions.

REACH Authorisation - Annex XIV: The components of this product are not subject

to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment: It has not been carried out.

16. Other information

www.rxmarine.com

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) № 1907/2006 and with CLP Regulation

(CE) Nº 1272/2008

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.