Material Safety Data Sheet

TETRAMETHYL AMMONIUM HYDROXIDE PENTAHYDRATE FOR SYNTHESIS (RXSOL-60-6605-695)

1. Product and Company Identifaction

Product Name	RXSOL-60-6605-695
Product Type	TETRMETHYL AMMONIUM HYDROXIDE PENTAHYDRATE FOR SYNTHESIS
Revised date	

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Substance / Preparation : Tetramethylammonium hydroxide pentahydrate
CAS No :10424-65-4
Substance.

Substance name	Contents	CAS No
Tetramethylammonium Hydroxide pentahydrate :	> 99 %	10424-65-4

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 EC 67/548 or EC 1999/45
Classification : T; R24/25
C; R34
Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Health hazards : Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314
Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301
Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : T : Toxic
R Phrase(s) : R24/25 : Toxic in contact with skin and if swallowed.
R34 : Causes burns.
S Phrase(s) : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
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.
Precautionary statements
• Prevention : P280: Wear protective gloves, protective clothing, eye protection, face protection.
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 : 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 : 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.
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

4.1. Description of first aid measures
Inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.
Skin contact : Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).
Eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Ingestion : Rinse mouth. Do NOT induce vomiting. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.
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. Swallowing a small quantity of this material will result in serious health hazard. 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).

5. Fire-fighting Measures

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. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.
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 : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
6.4. Reference to other sections
See section 8. Exposure controls/personal protection

7. Handling and Storage

7.1. Precautions for safe handling
Handling : Do not breathe dust, fume, gas, mist, vapours, spray. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
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 closed when not in use.
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. Exposure controls and personal protection

8.1. Exposure controls
Personal protection : Avoid all unnecessary exposure.
• Respiratory protection : Wear approved mask.
• Hand protection : Wear protective gloves.
• Skin protection : Wear suitable protective clothing.
• 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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state at 20 °C : Solid.
Odour threshold : No data available.
pH value : Not applicable.
Melting point [°C] : 67 - 70 °C
Decomposition point [°C] : N/A
Critical temperature [°C] : N/A
Auto-ignition temperature [°C] : 470 °C
Flammability (solid, gas) : N/A
Flash point [°C] : N/A
Boiling point [°C] : N/A
Initial boiling point [°C] : N/A
Final boiling point [°C] : N/A
Evaporation rate : N/A
Vapour pressure [20°C] : 129 hPa at 20 °C
Vapour pressure mm/Hg : N/A
Vapour density : 6,3
Density [g/cm3] : 1,829
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : Soluble in water
Solubility in water : N/A
Log Pow octanol / water at 20°C : No data available.
Solubility : N/A
Viscosity at 40°C [mm2/s] : N/A
9.2. Other information
Explosive properties : N/A
Explosion limits - upper [%] : 36%
Explosion limits - lower [%] : 6,70%
Oxidising properties : No data available.

10. Stability and reactivity

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

11.1. Information on toxicological effects
Acute toxicity
• Inhalation : Based on available data, the classification criteria are not met.
• 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 : Based on available data, the classification criteria are not met.
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

12.1. Toxicity
Toxicity information : Not established.
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

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

14.1. Land transport (ADR-RID)
Proper shipping name : TETRAMETHYLAMMONIUM HYDROXIDE, SOLID
UN N° : 3423
H.I. nr : 80
ADR - Class : 8
Labelling - Transport : 8 : Corrosive substance.
ADR - Classification code : C8
ADR - Group : II
ADR - Packing instructions : P002
ADR - Limited Quantity : 1 KG
ADR - Tunnel code : E : Passage forbidden through tunnels of category E.
14.2. Sea transport (IMDG) [English only]
Proper shipping name : TETRAMETHYLAMMONIUM HYDROXIDE, SOLID

UN N° : 3423
IMO-IMDG - Class or division : 8 : Corrosive substance.
IMO-IMDG - Packing group : II
IMO- IMDG - Packing instructions : P002
IMO-IMDG - Limited quantities : 1 kg
IMO-IMDG - Marine pollution : No
EMS-Nr : F-A S-B
14.3. Air transport (ICAO-IATA) [English only]
Proper shipping name : TETRAMETHYLAMMONIUM HYDROXIDE, SOLID
UN N° : 3423
IATA - Class or division : 8 : Corrosive substance.
IATA - Packing group : II
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing : 859
instruction
- Passenger and Cargo - Maximum : 15 kg
Quantity/Packing
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 863
- Cargo only - Maximum Quantity/ : 50 kg
Packing
IATA - Limited Quantites : 5 kg
ERG-Nr : 8L

15. Regulatory information

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

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.
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