Material Safety Data Sheet

TRIMETHYL ORTHOFORMATE FOR SYNTHESIS 98% (RXSOL-60-6605-773)

1. Product and Company Identifaction

Product Name	RXSOL-60-6605-772
Product Type	TRIMETHYL ORTHOFORMATE FOR SYNTHESIS 98%
Revised date	

Company Details:

RX MARINE INTERNATIONAL
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2. Composition / informationon ingredients

Substance / Preparation : Preparation.

3. Hazards Identification

3.1. Classification of the substance or mixture
Classification EC 67/548 or EC 1999/45
Classification : F; R11
Xi; R36
Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Health hazards : Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319
Physical hazards : Flammable solids - Category 1 - Danger (CLP : Flam. Sol. 1) H228
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : F : Highly flammable
Xi : Irritant
R Phrase(s) : R11 : Highly flammable.
R36 : Irritating to eyes.
S Phrase(s)
: S16 : Keep away from sources of ignition - No smoking.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek
medical advice.
Contains : Pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate
Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms
Signal words : Danger
Hazard statements : H228 : Flammable solid.
H319 : Causes serious eye irritation.
Precautionary statements
• Prevention : P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical, ventilating, lighting, …, equipment.
P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
P280: Wear protective gloves, protective clothing, eye protection, face protection.
P264: Wash thoroughly after handling.
• Response : P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P370+P378: In case of fire: Use for extinction.
Contains : Pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate
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 : Assure fresh air breathing. Allow the victim to rest.
Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice.
Ingestion : Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms relating to use : Causes serious eye irritation.
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
Flammable class : Flammable solid.
Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
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.
Technical measures : Use special care to avoid static electric charges.
Special precautions : Remove ignition sources. No naked lights. No smoking.
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 : Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling.
Technical protective measures : Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, …, equipment.
Special precautions : No naked lights. No smoking.
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. Keep in fireproof place. Ground/bond container and receiving equipment.
Storage - away from : Strong bases.
Strong acids. Sources of ignition. Direct sunlight. Heat sources.
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.
• Eye protection : Chemical goggles or safety glasses.
• 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 : Liquid.
Odour threshold : No data available.
pH value : Not applicable.
Melting point [°C] : -53°C
Decomposition point [°C] : N/A
Critical temperature [°C] : N/A
Auto-ignition temperature [°C] : 255 °C
Flammability (solid, gas) : Flammable.
Flammable solid. Flash point [°C] : 13 °C
Boiling point [°C] : 101 - 102 °C
Initial boiling point [°C] : 101 °C
Final boiling point [°C] : 102 °C
Evaporation rate : N/A
Vapour pressure [20°C] : 53 hPa at 30 °C
Vapour pressure mm/Hg : N/A
Vapour density : 3,67 Density [g/cm3] : 0,9676
Relative density, gas (air=1) : N/A
Relative density, liquid (water=1) : N/A
Solubility in water [% weight] : Hydrolyzes 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 [%] : 5,10%
Explosion limits - lower [%] : 1,40%
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. Open flame.
Overheating. Heat. Sparks.
10.5. Incompatible materials
Materials to avoid : Strong acids. Strong bases.
10.6. Hazardous decomposition products
Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
May release flammable gases.

11. Toxicological information

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

• Ingestion : Based on available data, the classification criteria are not met.
Corrosion : Based on available data, the classification criteria are not met.
Irritation : Causes serious eye irritation.
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 : 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

13.1. Waste treatment methods
General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Special precautions : Handle empty containers with care because residual vapours are flammable.

14. Transport information

14.1. Land transport (ADR-RID)
Proper shipping name : ESTERS, N.O.S.
UN N° : 3272
H.I. nr : 33
ADR - Class : 3
Labelling - Transport : 3 : Flammable liquid.
ADR - Classification code : F1
ADR - Group : II
ADR - Packing instructions : P001 R001
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 : ESTERS, N.O.S.
UN N° : 3272
IMO-IMDG - Class or division : 3 : Flammable liquid.
IMO-IMDG - Packing group : II
IMO- IMDG - Packing instructions : P001
IMO-IMDG - Limited quantities : 1 L
IMO-IMDG - Marine pollution : No
EMS-Nr : F-E S-D
14.3. Air transport (ICAO-IATA) [English only]
Proper shipping name : ESTERS, N.O.S.
UN N° : 3272
IATA - Class or division : 3 : Flammable liquid.
IATA - Packing group : II
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing : 353
instruction
- Passenger and Cargo - Maximum : 5 L

Quantity/Packing
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 364
- Cargo only - Maximum Quantity/ : 60 L
Packing
IATA - Limited Quantites : 1 L
ERG-Nr : 3L.

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 : With the exception of those listed below:
The components of this product are not subject to restrictions.
Annex XVII
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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