Material Safety Data Sheet

PERCHLORIC ACID AR 70% SUITABLE FOR DIAMOND INDUSTRY (RXSOL-60-6605-202)

1. Product and Company Identifaction

Product Name	RXSOL-60-6605-202
Product Type	PERCHLORIC ACID 70% AR SUITABLE FOR DIAMOND INDUSTRY
Revised date	

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / informationon ingredients

Substance / Preparation : Preparation.

Substance name	Contents	CAS No
Perchloric acid :	70%	7601-90-3
Acetic acid glacial	30%	64-19-7

3. Hazards Identification

3.1. Classification of the substance or mixture
Classification EC 67/548 or EC 1999/45
Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)
Health hazards : Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314
Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318
Physical hazards : Oxidizing liquids - Category 1 - Danger (CLP : Ox. Liq. 1) H271
3.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s) : O : Oxidizing
C : Corrosive

R Phrase(s) : R5 : Heating may cause an explosion.
R8 : Contact with combustible material may cause fire.
R35 : Causes severe burns.
S Phrase(s) : S1/2 : Keep locked up and out of reach of children.
S23 : Do not breathe the gas, fumes, vapours, spray.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 : Wear suitable protective clothing and gloves & eye/face protecting.
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 : H271 : May cause fire or explosion; strong oxidizer.
H314 : Causes severe skin burns and eye damage.
Precautionary statements
• General : P102: Keep out of reach of children.
P103: Read label before use.
P101: If medical advice is needed, have product container or label at hand.
• Prevention : P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.
P280: Wear protective gloves, protective clothing, eye protection, face protection.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.
P220: Keep away from clothing - combustible materials.
P264: Wash thoroughly after handling.
• Response : P371+P380+P375: In case of major fire and large quantities : Evacuate area. Fight
fire remotely due to the risk of explosion.
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.
P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
P306+P360: IF ON CLOTHING : Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P363: Wash contaminated clothing before reuse.
P370+P378: In case of fire: Use for extinction.
• 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 : IF ON CLOTHING :
Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor.
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 : Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms relating to use : 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
Flammable class : May cause fire or explosion; strong oxidizer.
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. In case of major fire and large quantities Evacuate area. Fight fire remotely due to the risk of explosioun.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.
Special precautions : No naked lights. No smoking. May cause fire or explosion; strong oxidizer.
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

7.1. Precautions for safe handling
Handling : Take any precaution to avoid mixing with combustibles. Do not breathe dust, fume, gas, mist, vapours, spray. Avoid contact during pregnancy or while nursing. 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.
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.
Storage regulation : Comply with applicable regulations.
Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources. Combustible material.
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.
Wear fire, flame resistant, retardant clothing.
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 : No data available.
Melting point [°C] : No data available.
Decomposition point [°C] : No data available.
Critical temperature [°C] : No data available.
Auto-ignition temperature [°C] : No data available.
Flammability (solid, gas) : No data available.
Flash point [°C] : No data available.
Initial boiling point [°C] : No data available.
Final boiling point [°C] : No data available.
Evaporation rate : No data available.
Vapour pressure [20°C] : No data available.
Vapour density : No data available.
Density [g/cm3] : No data available.
Relative density, liquid (water=1) : No data available.
Solubility in water : No data available.
Log Pow octanol / water at 20°C : No data available.
Viscosity at 40°C [mm2/s] : No data available.
9.2. Other information
Explosive properties : No data available.
Explosion limits - upper [%] : No data available.
Explosion limits - lower [%] : No data available.
Oxidising properties : May cause fire or explosion; strong oxidizer.

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.
Heat. Sparks. Overheating. Open flame.
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 vapouurs.

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 : Causes severe skin burns and eye damage. Causes serious 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 : 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. Hazardous waste due to potential risk of explosion. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

14.1. Land transport (ADR-RID)
Proper shipping name : PERCHLORIC ACID
UN N° : 1873
H.I. nr : 558

ADR - Class : 5.1
Labelling - Transport : 5.1 : Oxidizing substances. 8 : Corrosive substance.
ADR - Classification code : OC1
ADR - Group : I
ADR - Packing instructions : P502
ADR - Limited Quantity : 0
ADR - Tunnel code : B/E : Tank carriage: Passage forbidden through tunnels of category B, C, D y E. Other carriage: Passage forbidden through tunnels of category E.
14.2. Sea transport (IMDG) [English only]
Proper shipping name : PERCHLORIC ACID
UN N° : 1873
IMO-IMDG - Class or division : 5.1 : Oxidizing substances. (8 : Corrosive substance.)
IMO-IMDG - Packing group : I
IMO- IMDG - Packing instructions : P502
IMO-IMDG - Limited quantities : None
IMO-IMDG - Marine pollution : No
EMS-Nr : F-A S-Q
14.3. Air transport (ICAO-IATA) [English only]
Proper shipping name : PERCHLORIC ACID
UN N° : 1873
IATA - Class or division : 5.1 : Oxidizing substances. (8 : Corrosive substance.)
IATA - Packing group : I
IATA - Passenger and Cargo Aircraft : NOT ALLOWED
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 553
- Cargo only - Maximum Quantity/ : 2.5 L
Packing
ERG-Nr : 5C

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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