Material Safety Data Sheet

PERCHLORIC ACID 20% (RXSOL-60-6605-199)

1. Product and Company Identifaction

Product Name	RXSOL-60-6605-199
Product Type	PERCHLORIC ACID 20%
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
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Email	mail@rxmarine.com

2. Composition / informationon ingredients

3.1. Substances : PERCHLORIC ACID 20%

Substance name	Contents	CAS No
Acetic Acid Glacial AR	80%	64-19-7
Perchloric Acid	20%	7601-90-3

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]
Mixtures/Substances: SDS EU 2015: According to
Regulation (EU) 2015/830 (REACH Annex II) Oxidising Liquids, H272
Category 2 Corrosive to metals, H290
Category 1 Acute toxicity (oral), H302
Category 4 Skin corrosion/irritation, H314
Category 1B Specific target organ toxicity — Repeated exposure, H373
Category 2 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) : C: Corrosive
R Phrase(s) : R34: Cause burns.
S Phrase(s) : S26: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advise.
S36/37/39 : Wear suitable protective clothing and gloves & eye/face protecting.
Hazard pictograms :

Signal word : Danger
Hazard statements : H272 - May intensify fire; oxidiser.
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements: P210 - Keep away from heat, hot surfaces, sparks,
open flames and other ignition sources. No smoking.
P280 - Wear protective gloves, protective clothing, face protection, eye protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 - Rinse mouth.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.
3.3. Other hazards No additional information available

4. First Aid Measures

4.1. Description of first aid measures
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact : Take off immediately all contaminated clothing. Wash with plenty of water/….
Immediately call a POISON CENTER/doctor.
First-aid measures after 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/doctor.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
4.2. Most important symptoms and effects, both acute and delayed
Symptoms/effects : Causes severe skin burns and eye damage. May cause damage to organs.
Symptoms/effects after ingestion : Harmful if swallowed.
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 extinguishing media containing water.
5.2. Special hazards arising from the substance or mixture
Fire hazard : May intensify fire; oxidiser. Explosion hazard : May cause fire or explosion; strong oxidiser.
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.
No open flames. 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 : On land, sweep or shovel into suitable containers. Collect spillage.
6.4. Reference to other sections
No additional information available

7. Handling and Storage

7.1. Precautions for safe handling
Additional hazards when processed : May be corrosive to metals. Precautions for safe
handling : Avoid contact with skin and eyes. Do not breathe vapours
. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Wash hands and other exposed areas with mild soap
and water before eating, drinking or smoking and when leaving work.
Do not eat, drink or smoke when using this product.
7.2. Conditions for safe storage, including any incompatibilities
Technical measures : Use only non-sparking tools. Ground/bond container and
receiving 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 face shield
Skin and body protection : Wear suitable protective clothing
Respiratory protection : [In case of inadequate ventilation] 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 : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : 104 °C
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 1.12 g/cm³ Solubility : No data available
Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available
9.2. Other information
No additional information available

10. Stability and reactivity

10.1. Reactivity
Thermal decomposition generates : Corrosive vapours.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No additional information available
10.4. Conditions to avoid Heat. Open flame. Sparks.
10.5. Incompatible materials
Strong acids. Strong bases.
10.6. Hazardous decomposition products
No additional information available

11. Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Oral: Harmful if swallowed. ATE CLP (oral) 500 mg/kg bodyweight
Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Serious eye damage, category 1, implicit Respiratory or
skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : May cause damage to organs
through prolonged or repeated exposure.
Aspiration hazard : Not classified

12. Ecological information

12.1. Toxicity
No additional information available
12.2. Persistence and degradability

Persistence and degradability Not established.
12.3. Bioaccumulative potential
Log Pow 0.17 Bioaccumulative potential
Not established.
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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

In accordance with ADR / RID / IMDG / IATA / ADN
14.1. UN number
UN-No. (ADR) : 1802
UN-No. (IMDG) : 1802
UN-No. (IATA) : 1802
UN-No. (ADN) : 1802
UN-No. (RID) : 1802
14.2. UN proper shipping name
Proper Shipping Name (ADR) : PERCHLORIC ACID Proper Shipping Name
(IMDG) : PERCHLORIC ACID Proper Shipping Name
(IATA) : Perchloric acid Proper Shipping Name
(ADN) : PERCHLORIC ACID Proper Shipping Name
(RID) : PERCHL ORIC ACID Transport document description
(ADR) : UN 1802 PERCHLORIC ACID, 8 (5.1), II, (E)
Transport document description (IMDG) : UN 1802 PERCHLORIC ACID, 8 (5.1), II
Transport document description (IATA) : UN 1802 Perchloric acid, 8 (5.1), II
Transport document description (ADN) : UN 1802 PERCHLORIC ACID, 8 (5.1), II
Transport document description (RID) : UN 1802 PERCHLORIC ACID, 8 (5.1), II
14.3. Transport hazard class(es)
ADR- Transport hazard class(es) (ADR) : 8 (5.1)
Danger labels (ADR) : 8, 5.1
IMDG- Transport hazard class(es) (IMDG) : 8 (5.1)
Danger labels (IMDG) : 8, 5.1
IATA- Transport hazard class(es) (IATA) : 8 (5.1)
Hazard labels (IATA) : 8, 5.1
ADN- Transport hazard class(es) (ADN) : 8 (5.1)
Danger labels (ADN) : 8, 5.1
RID- Transport hazard class(es) (RID) : 8 (5.1)
Danger labels (RID) : 8, 5.1
14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II
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) : CO1
Special provisions (ADR) : 522
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP3
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Loading,

unloading and handling (ADR) : CV24
Hazard identification number (Kemler No.) : 85
Orange plates : Tunnel restriction code (ADR) : E EAC
code : 2P
Transport by sea-
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-H EmS-No.
(Spillage) : S-Q Stowage category
(IMDG) : C Segregation (IMDG) : SG16
Properties and observations (IMDG) : Colourless liquid.Oxidant
. Highly corrosive to most metals.
MFAG-No : 140
Air transport-
PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : Forbidden PCA max net quantity (IATA) : Forbidden
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A1
ERG code (IATA) : 8X
Inland waterway transport-
Classification code (ADN) : CO1
Special provisions (ADN) : 522
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E0
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0
Rail transport-
Classification code (RID) : CO1
Special provisions (RID) : 522
Limited quantities (RID) : 1L
Excepted quantities (RID) : E0
Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP3
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 2
Special provisions for carriage - Loading,
unloading and handling (RID) : CW24
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 85
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 Contains no
REACH substances with Annex XVII restrictions Contains no substance on the
REACH candidate list Contains no REACH Annex XIV substances
15.1.2. National regulations
Germany
Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water
(Classification according to AwSV, Annex 1)
12th Ordinance Implementing the Federal
Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)
Netherlands
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed
Denmark
Recommendations Danish Regulation : Young people below the age of 18 years
are not allowed to use the product
Pregnant/breastfeeding women working with the
product must not be in direct contact with the product
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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