

Material Safety Data Sheet



PERCHLORIC ACID 20%

VERSION : 02

DATE OF ISSUE : 26-08-2019

SUPERSEDES : 01

Product Code : 16745

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : PERCHLORIC ACID 20%

Product code : 16745

Identification of the product : Perchloric Acid 20%

CAS No : 7601-90-3

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,
Kulgaon, Badlapur (E), Dist.-Thane-421 503

1.4. Emergency telephone number

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

2. Hazards identification

2.1. 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

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display
Extra classification(s) to display

Symbol(s) : C: Corrosive

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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 advice.

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.

2.3. Other hazards

No additional information available

3. Composition/information on 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.

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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. Firefighting 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

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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/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

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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

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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

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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) : PERCHLORIC 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) : 11

Excepted quantities (ADR) : E0

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP3

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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

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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

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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.

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Prepared by: MOLYCHEM (INDIA)

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