

Safety Data Sheet according to Regulation (EU) No. 1907/2006

HYDROCHLORIC ACID 30-36%

Revision 3.0

Revision Date 20.02.2018

Print Date 20.02.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

HYDROCHLORIC ACID 30-36%

Chemical name: Hydrochloric Acid

Formula: HCl

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

Recommended uses: Manufacture (M)
Intermediate (precursor)
Formulation and (re)packaging of substances and mixtures.
See enclosed exposure scenarios for further information.

1.3 Details of the supplier of the safety data sheet

-Company: Goulding Chemicals Ltd.
-Address: Centre Park Road, Marina, Cork, Ireland
-Telephone: +353 (021) 4911611
-Fax: +353 (021) 4911660
-Contact Email: larry.egar@gouldings.ie

1.4 Emergency telephone number

-Emergency telephone number (outside of office hours): +353 (021) 4911619

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

CLP-classification: Skin Corr. 1B;H314 STOT SE 3;H335

Most serious harmful effects: Causes severe skin burns and eye damage. May cause respiratory irritation.

2.2 Label elements



Signal word:

Danger

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Contains

Substance: hydrochloric acid 36 %

H-phrases

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

P-phrases

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313 IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards

Prickling Corrosive

SECTION 3: Composition/information on ingredients
3.1 Mixtures

| Substance | CAS number | EC No | REACH Reg. No. | Concentration | Notes | CLP-classification |
|-------------------------|------------|-----------|-----------------------|---------------|-------|--------------------------------------|
| hydrochloric acid ... % | 7647-01-0 | 231-595-7 | 01-2119484862-27-0108 | 30 - 36% | | Skin Corr. 1B;H314 STOT SE 3;H335 |

Please see section 16 for the full text of H-phrases.

SECTION 4: First aid measures
4.1 Description of first aid measures

Inhalation: Seek fresh air. Seek medical advice in case of persistent discomfort.

Ingestion: Seek medical advice immediately. Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do not induce vomiting.

Skin contact: Wash the skin thoroughly with water and continue washing for a long time. Immediately remove contaminated clothing, watch and jewellery. Seek medical advice immediately.

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- Eye contact:** Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist. Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
- General:** When obtaining medical advice, show the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed Notes to physician

Inhalation is corrosive to the upper airways. Causes a burning sensation in the nose, mouth and throat, together with sneezing, coughing, breathing difficulties and chest pain. Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin. Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

4.3 Indication of any immediate medical attention and special treatment needed

Ensure that medical personnel are aware of the material involved, and take precautions to protect themselves. Take off contaminated clothing and wash before reuse. Keep victim warm.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media:** Extinguish with powder, foam, carbon dioxide or water mist.
Unsuitable extinguishing: Do not use water stream, as it may spread the fire.

5.2 Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed: chlorine

5.3 Advice for fire-fighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit but gas-tight suit when close proximity to the substance or its vapours is likely. Extinguishing water which has been in contact with the product may be corrosive.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel:** Provide good ventilation. In case of insufficient ventilation, wear respiratory protective equipment. Wear safety goggles/face protection. Stop leak if this can be done without risk.
- For emergency responders:** Chemical protective suit equivalent to EN 943-2 is recommended.

6.2 Environment related measures

Avoid unnecessary release to the environment. Do not discharge large quantities of concentrated spills and residue into drains. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

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6.3 Methods and material for containment and cleaning up

Caution! Causes burns. Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. Rinse with water. Provide good ventilation.

6.4 Reference to other sections

See section 8 for type of protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. All work must be carried out under well-ventilated conditions. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not eat, drink or smoke during work. A safety shower must be available. Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Do not store with the following: Strong alkalis. Oxidisers. Keep in tightly closed original packaging. Avoid direct sunlight. Store in a well-ventilated area.

7.3. Specific end use(s)

See enclosed exposure scenarios.

Other Information: May be corrosive to metals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters Occupational exposure limit

| Substance name | Time period | ppm | mg/m ³ | Comments | Remarks |
|-------------------------|-------------|-----|-------------------|----------|---------|
| hydrochloric acid ... % | 8h | 1 | 2 | | |
| hydrochloric acid ... % | 15m | 5 | 8 | | |

DNEL - workers

| hydrochloric acid ... % | | | | | |
|-------------------------|-------|-------------------|-----------------|-----------------------|------|
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| | | | | | |

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| | | | | | |
|--|----------------------|--|--|------------------------------------|--|
| Dermal DNEL (acute/short-term exposure - local effects) | 15 mg/m ³ | | | Irritation (respiratory system) | |
| Inhalation DNEL (long-term exposure - local effects) | 8 mg/m ³ | | | Irritation (respiratory system) | |

DNEL - general population

| hydrochloric acid ... % | | | | | |
|--|----------------------|-------------------|-----------------|------------------------------------|------|
| Exposure | Value | Assessment Factor | Dose Descriptor | Main Impact Parameter | Note |
| Inhalation DNEL (long-term exposure - local effects) | 8 mg/m ³ | | | Irritation (respiratory system) | |
| Inhalation DNEL (acute/short-term exposure - local effects) | 15 mg/m ³ | | | Irritation (respiratory system) | |

8.2. Exposure controls

| | |
|---|---|
| Exposure controls: | All work must be carried out under well-ventilated conditions. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not eat, drink or smoke during work. See enclosed exposure scenarios for further information. |
| Appropriate engineering controls: | Provide good ventilation. Do not eat, drink or smoke when using this product. Wear the personal protective equipment specified below. |
| Personal protective equipment, eye, eye/face protection: | Wear safety goggles/face protection. |
| Personal protective equipment, skin protection: | Wear suitable protective clothing. Wear rubber apron and boots as required. |
| Personal protective equipment, hand protection: | Wear gloves. Type of material and thickness: Vinyl/ PVC. 0.4 mm Penetration time: >8 hours. |
| Personal protective equipment, respiratory protection: | In case of insufficient ventilation, wear respiratory protective equipment. Filter type: E. In case of risk of formation of spray mist, wear respiratory protective equipment with P2 filter. |

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SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

| Parameter | Value/unit | |
|---|----------------------|-------------|
| State | Liquid | |
| Colour | Colourless Yellowish | |
| Odour | Prickling | |
| Solubility | Water soluble. | |
| Explosive properties | No data | |
| Oxidising properties | No data | |
| Parameter | Value/unit | Remarks |
| pH (solution for use) | No data | |
| pH (concentrate) | < 1 | 5% solution |
| Melting point | ~ -20 °C | |
| Freezing point | No data | |
| Initial boiling point and boiling range | ~ 50 °C | |
| Flash Point | No data | |
| Evaporation rate | No data | |
| Flammability (solid, gas) | No data | |
| Flammability limits | No data | |
| Explosion limits | No data | |
| Vapour pressure | ~ 21 mbar | |
| Vapour density | No data | |
| Relative density | No data | |
| Partition coefficient n-octanol/water | No data | |
| Auto-ignition temperature | No data | |
| Decomposition temperature | No data | |
| Viscosity | 600 - 1000 cSt | |
| Odour threshold | No data | |

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9.2 Other information

| Parameter | Value/unit | Remarks |
|-----------|-------------------------|---------|
| Density | 1123 kg/dm ³ | |

Other Information: Solubility in water: Complete

SECTION 10: Stability and reactivity

10.1 Reactivity

Reacts with metals to form hydrogen gas which may produce explosive hydrogen/air mixtures.

10.2 Chemical stability

The substance is stable when used in accordance with the supplier's directions.

10.3 Possibility of hazardous reactions

May be corrosive to metals.

10.4 Conditions to avoid

Do not expose to heat (e.g. sunlight).

10.5 Incompatible materials

Avoid contact with the following: Alkalis/ Water.

10.6 Hazardous decomposition products

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: chlorine.

SECTION 11: Toxicological information

Please find below the data available to us:

11.1 Information on toxicological effects

Acute toxicity - inhalation

hydrochloric acid ... %

| Organism | Test Type | Exposure time | Value | Conclusion | Test method | Source |
|----------|-----------|---------------|-----------------------|------------|-------------|---------------|
| Rat | LC50 | | 7051mg/m ³ | | | REACH dossier |

Harmful by inhalation.

Skin corrosion/irritation:

Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin.

Serious eye damage/eye irritation:

Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

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Single STOT exposure: Inhalation of vapours/spray mist may cause irritation to the upper airways.

SECTION 12: Ecological information

12.1. Toxicity hydrochloric acid ... %

| Organism | Species | Exposure time | Test Type | Value | Conclusion | Test method | Source |
|-----------|---------------|---------------|-----------|----------|------------|-------------|--------|
| Fish | freshwater | | 96hLC50 | 20.5mg/l | | | |
| Crustacea | Daphnia magna | | 48hEC50 | 0.45mg/l | | | |
| Algae | | | LC50 | 0.23mg/l | | | |

The product affects the pH value of the local aquatic environment.

12.2. Persistence and degradability

Test data are not

available.

12.3 Bioaccumulative potential

Test data are not available.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

The product affects the pH value of the local aquatic environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid unnecessary release to the environment. Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

Category of waste: 06 01 02* hydrochloric acid

SECTION 14: Transport information

Land transport (ADR/RID)

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| | | | |
|--|--|---|-------------------------|
| 14.1. UN-No.: 1789 | | 14.4. Packing group: | II |
| 14.2. UN proper shipping name: (hydrochloric acid ... %) | | 14.5. Environmental hazards: | |
| 14.3. Transport hazard class(es): Hazard label(s): 8 Hazard identification number: 80 Inland water ways transport (ADN) | | Tunnel restriction code: | |
| 14.1. UN-No.: | 1789 | 14.4. Packing group: | |
| 14.2. UN proper shipping name: 14.3. Transport hazard class(es): Hazard label(s): Transport in tank vessels: Sea transport (IMDG) | Hydrochloric acid (hydrochloric acid ... %) | 14.5. Environmental hazards: | |
| 14.1. UN-No.: | 1789 | 14.4. Packing group: | II |
| 14.2. UN proper shipping name: | Hydrochloric acid (hydrochloric acid ... %) | 14.5. Environmental hazards: | |
| 14.3. Transport hazard class(es): | 8 | Environmental Hazardous Substance Name(s): | hydrochloric acid ... % |
| Hazard label(s): | 8 | | |
| EmS: | 8-03 | IMDG Code segregation group: | |
| Air transport (ICAO-TI / IATA-DGR) | | | |

14.6. Special precautions for user

May be corrosive to metals.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC code
SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Authorisations / limitations: ADR/RID. REACH (EC 1907/2006) GHS/CLP (EC NO1272/2008) GHS USA June, 2015.

15.2. Chemical Safety Assessment

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| REACH Reg. No. | Substance name |
|-----------------------|-------------------------|
| 01-2119484862-27-0108 | hydrochloric acid ... % |

Other Information: See enclosed exposure scenarios.

SECTION 16: Other information

References to literature and data sources:

ECHA reg. sub.: ECHA database for information on registered substances. Exposure scenario Registration dossiers

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

List of relevant H-statements

H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

End of Safety Data Sheet