

Safety Data Sheet

Hydrochloric Acid 15% H15

1. Identification of the substance/preparation and of the Company/undertaking

1.1 Product identifier

Product name Hydrochloric Acid 15% H15
Product code H015

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

Recommended Use Used as an acidizing additive in oilfield applications

Uses advised against None known.

1.3 Details of the supplier of the safety data sheet

Supplier

Schlumberger Oilfield Australia Pty Ltd
ABN: 74 002 459 225
ACN: 002 459 225
256 St. Georges Terrace, Perth WA 6000
SDS@slb.com

1.4 Emergency Telephone Number

Emergency telephone - (24 Hour) Australia +61 2801 44558, Asia Pacific +65 3158 1074, China +86 10 5100 3039, Europe +44 (0) 1235 239 670, MiddleEast and Africa +44 (0) 1235 239 671, New Zealand +64 9929 1483, USA 001 281 561 1600

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to (EC) No. 1272/2008

Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3

Environmental hazards Not classified

Physical Hazards

Substances/mixtures corrosive to metal	Category 1
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2.2 Label elements



Signal word
DANGER

Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H290 - May be corrosive to metals

Precautionary statements - EU (28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/protective clothing and eye/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position 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
P501 - Dispose of contents/ container to an approved waste disposal plant

Supplementary precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P310 - Immediately call a POISON CENTER or doctor/ physician
P321 - Specific treatment (see supplemental first aid instructions on this label)
P337 + P313 - If eye irritation persists: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up

Indication of danger

Xi - Irritant

R-code(s)

Xi;R36/37/38

Contains

Hydrochloric acid

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

2.3 Other data

Not classified as PBT/vPvB by current EU criteria

Australian statement of hazardous/dangerous nature

Classified as Hazardous according to the criteria of NOHSC.
HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3. Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Component	EC-No.	CAS-No	Weight % - range	Classification (67/548)	Classification (Reg. 1272/2008)	REACH registration number
Hydrochloric acid	231-595-7	7647-01-0	15	C;R34-37	Acute Tox. 3 (H331) Skin Corr. 1A (H314) Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr.1 (H290)	No data available

Comment

The product contains other ingredients which does not contribute to the overall classification.

4. First aid measures

4.1 Description of first-aid measures

Inhalation	If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Seek medical attention if irritation occurs.
Skin contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.
Eye contact	Remove contact lenses. Promptly wash eyes with lots of water while lifting eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed

General advice The severity of the symptoms described will vary dependant of the concentration and the length of exposure. If adverse symptoms developas described the casualty should be transferred to hospital as soon as possible.

Main symptoms

Inhalation	Please see Section 11. Toxicological Information for further information.
Ingestion	Please see Section 11. Toxicological Information for further information.
Skin contact	Please see Section 11. Toxicological Information for further information.
Eye contact	Please see Section 11. Toxicological Information for further information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product itself does not burn, Use extinguishing media appropriate for surrounding material.

Extinguishing media which shall not be used for safety reasons

None known.

5.2 Special hazards arising from the substance or mixture**Unusual fire and explosion hazards**

Contact with metals may evolve flammable hydrogen gas.

Hazardous combustion products

Fire or high temperatures create: Hydrogen chloride gas.

5.3 Advice for firefighters**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

Special Fire-Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Hazchem code ADG

2R

6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. See also section 8.

6.2 Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.

Environmental exposure controls

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After cleaning, flush away traces with water.

6.4 Reference to other sections

See section 13 for more information.

7. Handling and storage**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Avoid spills and splashing during use.

Hygiene measures

Use good work and personal hygiene practices to avoid exposure. Wash hands and face before breaks and immediately after handling the product. Remove contaminated clothing. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/precautions	Use only in area provided with appropriate exhaust ventilation. Keep airborne concentrations below exposure limits. Keep away from heat.
Storage precautions	Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store and transport with oxidizers. Strong alkalies.
Storage class	Chemical storage.
Packaging material	Use specially constructed containers only

7.3 Specific end uses

See Section 1.2.

8. Exposure controls/personal protection

8.1 Control parameters

Component	EU OEL	Austria	Australia	Denmark
Hydrochloric acid	5 ppm TWA; 8 mg/m ³ TWA	Not determined	Not determined	Not determined
Component	Finland	France	Germany	Hungary
Hydrochloric acid	Not determined	Not determined	Not determined	Not determined
Component	Ireland	Italy	Netherlands	Norway
Hydrochloric acid	Not determined	Not determined	8 mg/m ³ GW	Not determined
Component	Poland	Portugal	Romania	Russia
Hydrochloric acid	10 mg/m ³ STEL 5 mg/m ³ TWA	Not determined	Not determined	Not determined
Component	Spain	Switzerland	Turkey	UK
Hydrochloric acid	10 ppm VLA-EC 15 mg/m ³ VLA-EC 5 ppm VLA-ED indicative limit value 7.6 mg/m ³ VLA-ED indicative limit value	4 ppm STEL 6 mg/m ³ STEL 2 ppm MAK 3.0 mg/m ³ MAK	10 ppm STEL 15 mg/m ³ STEL 5 ppm TWA 8 mg/m ³ TWA	5 ppm STEL aerosol mist and gas 8 mg/m ³ STEL aerosol mist and gas 1 ppm TWA aerosol mist and gas 2 mg/m ³ TWA aerosol mist and gas

Component information**Kit components**

No biological limit allocated

Derived No Effect Level (DNEL)**Hydrochloric acid**

Inhalation 15 mg/m³

Long term exposure local effects

Hydrochloric acid	
Inhalation	8 mg/m ³
Predicted No Effect Concentration (PNEC)	
Hydrochloric acid	
Fresh water	36 µg/L
Sea water	36 µg/L
Intermittent release	45 µg/L

8.2 Exposure controls

All chemical Personal Protective Equipment (PPE) should be selected based on an assessment of both the chemical hazard present and the risk of exposure to those hazards. The PPE recommendations below are based on an assessment of the chemical hazards associated with this product. Where this product is used in a mixture with other products or fluids, additional hazards may be created and as such further assessment of risk may be required. The risk of exposure and need of respiratory protection will vary from workplace to workplace and should be assessed by the user in each situation.

Engineering measures to reduce exposure

Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment.

Personal protective equipment

Eye protection	It is good practice to wear goggles when handling any chemical. Tightly fitting safety goggles.
Hand protection	Wear chemical resistant gloves such as nitrile or neoprene, Be aware that liquid may penetrate the gloves. Frequent change is advisable.
Respiratory protection	No personal respiratory protective equipment normally required, In case of insufficient ventilation wear suitable respiratory equipment, Use respirator with organic vapor/acid gas protection (E, yellow).
Skin and body protection	Wear appropriate personal protective clothing to prevent skin contact, Eye wash and emergency shower must be available at the work place.

Hygiene measures

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product.



9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aqueous solution
Odor	Pungent
Color	Colorless
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH	< 2	
pH @ dilution	No information available	
Melting/freezing point	< 0 °C	
Boiling point/range	~100 °C	
Flash point	Not Applicable	
Evaporation rate (BuAc =1)	No information available	
Flammability (solid, gas)	Not Applicable	
Flammability Limits in Air		

Upper flammability limit	No information available
Lower flammability limit	No information available
Vapor pressure	31.33 hPa (@ 20°C)
Vapor density	1.267
Specific gravity	No information available
Bulk density	No information available
Relative density	1.161 - 1.19 g/cm ³ (@ 20°C).
Water solubility	Miscible with water.
Solubility in other solvents	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	1 mPa.s (@ 20 °C)
Log Pow	Not determined

Explosive properties	Not Applicable
Oxidizing properties	None known.

9.2 Other information

Pour point	No information available
Molecular weight	No information available
VOC content(%)	None
Density	No information available

10. Stability and reactivity

10.1 Reactivity

Gives off hydrogen by reaction with metals.

10.2 Chemical stability

Stable under normal temperature conditions and recommended use.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong oxidizing agents. Alkali metals.

10.6 Hazardous decomposition products

Fire or high temperatures create:.. Hydrogen chloride.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product information

Inhalation May cause irritation of respiratory tract.

Eye contact	Causes serious eye irritation.
Skin contact	Causes skin irritation.
Ingestion	Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Acute toxicity	.

Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Hydrochloric acid	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h

Sensitization	This product does not contain any components suspected to be sensitizing.
Mutagenic effects	Not known to cause heritable genetic damage.
Carcinogenicity	None known.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
Routes of exposure	Skin contact. Eye contact. Respiratory system.
Routes of entry	No route of entry noted.
Specific target organ toxicity (single exposure)	Respiratory system.
Specific target organ toxicity (repeated exposure)	No information available.
Aspiration hazard	No hazard from product as supplied.

12. Ecological information

12.1 Toxicity

Ecotoxicity effects

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Toxicity to algae

See component information below.

Toxicity to fish

See component information below.

Toxicity to daphnia and other aquatic invertebrates

See component information below.

Component	Freshwater fish species data	Freshwater algae	Water flea data
Hydrochloric acid 7647-01-0 (15)	282 mg/L LC50 (Gambusia affinis) = 96 h	No information available	No information available

12.2 Persistence and degradability

No product level data available.

12.3 Bioaccumulative potential

There is no data available for this product.

12.4 Mobility in soil

Mobility

The product is miscible with water. May spread in water systems.

12.5 Results of PBT and vPvB assessment

Not classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects.

None known.

13. Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products	Dispose of as hazardous waste in compliance with local and national regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.
EWC Waste disposal No.	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: EWC waste disposal No: 16 10 01, 16 03 03

14. Transport information

14.1 UN Number

UN/ID No. (ADR/RID/ADN/ADG)	UN 1789
UN No. (IMDG)	UN 1789
UN No. (ICAO)	UN 1789

14.2 Proper shipping name

HYDROCHLORIC ACID SOLUTION 15%

14.3 Hazard class(es)

ADR/RID/ADN Hazard class	8
IMDG Hazard class	8
ICAO Hazard class/division	8

14.4 Packing group

ADR/RID/ADN Packing Group	II
IMDG Packing group	II
ICAO Packing group	II

14.5 Environmental hazard

Marine pollutant No

14.6 Special precautions

Hazard identification no (ADR)	80
EmS (IMDG)	F-A, S-B
Hazchem code ADG	2R

14.7 Transport in bulk according to MARPOL 73/78 and IBC Code

Not Applicable Please contact SDS@sib.com for info regarding transport in Bulk.

15. Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Germany, Water Endangering Classes (VwVwS) Hazardous to water/Class 1

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Australian Standard for the Uniform Scheduling of Drugs and Poisons

Hydrochloric acid
Schedule 6
Schedule 5

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

This safety data sheet complies with the requirements of Regulation (EC) No. 1272/2008.

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)].

National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004) 3rd Edition].

National Occupational Health and Safety Commission's Exposure Standards for Atmospheric Contaminants in the occupational Environment [NOHSC:1003 (1995)].

Safe Work Australia.

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

ADG Code – Australian Dangerous Goods Code.

International inventories

USA (TSCA)	Complies
European Union (EINECS and ELINCS)	Complies
Canada (DSL)	Complies
Philippines (PICCS)	Complies
Japan (ENCS)	Complies
China (IECSC)	Complies
Australia (AICS)	Complies

Korean (KECL)
New Zealand (NZIoC)Complies
Complies

Component	SARA 302 / TPQs	SARA 313	CERCLA RQ
Hydrochloric acid	500 lb TPQ	1.0 %	5000 lb final RQ 2270 kg final RQ

15.2 Chemical Safety Report

No information available

16. Other information

Prepared by Global Chemical Regulatory Compliance (GCRC)

Supersedes date

Revision date 06/Jan/2014

Version 1

HMIS classification

Health 1
Flammability 1
Physical 0**Text of R phrases mentioned in Section 3**

R36/37/38 - Irritating to eyes, respiratory system and skin

Full text of H-Statements referred to under sections 2 and 3H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

H290 - May be corrosive to metals

N/A - Not Applicable, N/D - Not Determined.

Disclaimer

The information contained herein is considered in good faith as reliable of the date issued and is based upon on measurements, tests or data derived from supplier's own study or furnished by others. In providing this MSDS information, Supplier makes no express or implied warranties as to the information or product; merchantability or fitness of purpose; any express or implied warranty; or non-infringement of intellectual property rights; and supplier assumes no responsibility for any direct, special or consequential damages, results obtained, or the activities of others. To the maximum extent permitted by law, supplier's warranty obligations and buyer's sole remedies are as stated in separate agreement between the parties.