

Safety Data Sheet **DECALCIFIER Solution 10% Hydrochloric acid**

SDS no. LBSASUCM • Version 1.0 • Date of issue: 2025-03-01

SECTION 1: Identification

GHS Product identifier

Product name DECALCIFIER Solution 10% Hydrochloric acid

Product number DECA

Recommended use of the chemical and restrictions on use

Laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

National contact

Name Australian Biostain Pty Ltd
Address 16 Shipwright Road
5016 Largs North SA
Australia

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Dangerous goods of Class 5.1 (Oxidizing Agent) are incompatible in a placard load with any of the following:
Class 1, Class 2.1, Class 2.3, Class 3, Class 4, Class 5.2, Class 7, Class 8, Fire risk substances and Combustible liquids.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Corrosive to metals, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H314
H290

Causes severe skin burns and eye damage
May be corrosive to metals

Precautionary statement(s)

P260
P280
P301+P330+P331
P303+P361+P353

P304+P340
P305+P351+P338

Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor/physician
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container to an approved waste disposal facility
Keep only in original packaging.
Absorb spillage to prevent material-damage.
Store in a corrosive resistant/... container with a resistant inner liner.

P310
P363
P405
P501
P234
P390
P406

SECTION 3: Composition/information on ingredients

Mixtures

[00] Information on Composition: Aqueous solution of the gas hydrogen chloride.

Components

Component	CAS no.	Concentration
HYDROCHLORIC ACID (<37%) (EC no.: 231-595-7; Index no.: 017-002-01-X)	7647-01-0	<= 10 % (volume)
CLASSIFICATIONS: Specific target organ toxicity following single exposure, Cat. 3; Skin corrosion/irritation, Cat. 1B. HAZARDS: H314 - Causes severe skin burns and eye damage; H335 - May cause respiratory irritation. [SCLs/M-factors/ATEs]: Skin Corr. 1B; H314: C ≥ 25 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %; STOT SE 3; H335: C ≥ 10 %		
Water (EC no.: 231-791-2)	7732-18-5	>= 90 % (volume)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

Specific hazards arising from the chemical

Hazards from Combustion Products: Irritating and highly toxic fumes of hydrogen chloride. Can react with metals generating flammable hydrogen gas.

Special protective actions for fire-fighters

Wear SCBA and acid-resistant chemical splash suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Methods and materials for containment and cleaning up

In the event of spillage, use absorbent (soil, sand or inert medium) place into tightly closed containers. Adhere to personal protective measures. Flush the remainder with plenty of water. Label container and dispose of as hazardous waste.

SECTION 7: Handling and storage

Precautions for safe handling

Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. When diluting, the acid should always be added slowly to water and in small

Safety Data Sheet

DECALCIFIER Solution 10% Hydrochloric acid

SDS no. LBSASUCM • Version 1.0 • Date of issue: 2025-03-01

amounts. Never use hot water and never add water to the acid. Keep away from incompatibles such as oxidizing agents, organic materials, metals, alkalis, moisture/water. Keep out of direct sunlight and away from heat and incompatible materials.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed containers, in a cool, dry, well-ventilated storage area with acid resistant floors and good drainage, away from incompatible substances. Store away from flammable or oxidizing substances (especially nitric acid or chlorates). Do not store in metal containers. There may be instances with the technical grade products where there may be contamination due to hydrofluoric acid. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.

Corrosiveness: Very corrosive to most metals. Rubber-lined steel, Haveg, Hastelby and tantalum, are the most commonly used corrosion-resistant materials of construction. Rubber, glass, plastic and ceramic ware are also resistant to corrosion.

Storage Temperatures: Store in a cool place (below 25 °C).

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear, colourless liquid.
Color	No data available.
Odor	Slight, characteristic, irritating odour of hydrogen chloride.

Safety Data Sheet

DECALCIFIER Solution 10% Hydrochloric acid

SDS no. LBSASUCM • Version 1.0 • Date of issue: 2025-03-01

Odor threshold	1-5 ppm (detectable); 10 ppm (irritating)
Melting point/freezing point	-18 °C (10%)
Boiling point or initial boiling point and boiling range	103 °C (10%)
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	-0.5 (10%)
Kinematic viscosity	Dynamic Viscosity: 1.16 mPa·s (10%)
Solubility	Solubility in Water: Soluble in all proportions, with slight evolution of heat.
Partition coefficient n-octanol/water (log value)	log Pow: 0.25 (concentrated).
Vapor pressure	0.527 Pa (10%)
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.048 (10%)
Relative vapor density	>1
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable at normal temperatures, pressures and conditions of use or storage.

Possibility of hazardous reactions

Large amounts of heat can be released when concentrated HCl is mixed with water or with organic solvents.

Can react with most metals, generating flammable hydrogen gas.

Reacts violently with bases (e.g. sodium hydroxide, amines), generating heat and pressure.

Reaction with aldehydes, or epoxides may cause violent polymerization, generating heat and pressure.

Reaction with reducing agents may produce heat, fire and flammable hydrogen gas.

May react with oxidizing agents, generating heat and toxic or corrosive chloride gases.

Contact with explosives may generate heat which could cause detonation.

May react with acetylides, borides, carbides, silicides, producing flammable gas (e.g., acetylene).

May react with cyanides, or sulfides to release toxic gas (HCN or H₂S).

May react with phosphide to release toxic, flammable phosphine gas.

Conditions to avoid

Metals, excess heat, exposure to moist air or water and incompatible materials.

Incompatible materials

Metals, bases (e.g. sodium hydroxide, amines), aldehydes, epoxides, reducing agents, oxidizing agents, permanganates, explosives, acetylides, borides, carbides, silicides, cyanides, sulfides and phosphide.

Hazardous decomposition products

Hydrogen chloride gas. Hydrogen chloride is thermally stable up to temperatures of about 1500 °C.

SECTION 11: Toxicological information**Information on toxicological effects****Acute toxicity**

Ingestion: Causes irritation to mouth, throat and stomach.

Inhalation: Vapour may cause irritation to the mucous membranes of the respiratory tract, with sore throat and coughing.

Skin corrosion/irritation

Liquid is slightly to highly irritating to skin and may cause burns.

Serious eye damage/irritation

Liquid is irritating to highly irritating to eyes and may cause scarring of the cornea (based on animal data). Vapour may cause eye irritation.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

No human information is available. Questionable positive results reported in some short-term tests. Negative results in some in-vitro mammalian cell tests.

Carcinogenicity

Hydrochloric acid [7647-01-0] is evaluated in the IARC Monographs (Vol. 54; 1992) as Group 3: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

SECTION 12: Ecological information**Toxicity**

Preparation contains: hydrochloric acid. Toxic for aquatic organisms. Harmful effect due to pH shift.

The following applies to HCl in general: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Does not cause biological oxygen deficit.

SECTION 13: Disposal considerations**Disposal methods**

Safety Data Sheet

DECALCIFIER Solution 10% Hydrochloric acid

SDS no. LBSASUCM • Version 1.0 • Date of issue: 2025-03-01

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1789

Class: 8

Packing Group: II

Proper Shipping Name: HYDROCHLORIC ACID

Environmental Hazards: Toxic for aquatic organisms. Harmful effect due to pH shift. Does not cause biological oxygen deficit.

Hazchem emergency action code (EAC)

2R

IMDG

UN Number: 1789

Class: 8

Packing Group: II

EMS Number:

Proper Shipping Name: HYDROCHLORIC ACID

IATA

UN Number: 1789

Class: 8

Packing Group: II

Proper Shipping Name: HYDROCHLORIC ACID

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: S6

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information

Safety Data Sheet

DECALCIFIER Solution 10% Hydrochloric acid

SDS no. LBSASUCM • Version 1.0 • Date of issue: 2025-03-01

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)