

UNIVERSAL SEALANTS (UK) LIMITED

NUFINS DIVISION

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1. Product Identification

Trade Name: CHEMCLEAN

Description: Hydrochloric acid solution for cleaning concrete surfaces.

2. Composition / Information on Ingredients

Ingredient	CAS Number	Conc. (w/w)	Classification	R. Phrases
Hydrochloric Acid	7647-01-0	20%	Xi	36/37/38

3. Hazard Identification

Gas evolved from the product, together with aerosol mists may cause irritation to the eyes, skin and respiratory system.

4. First Aid Measures

Inhalation: In case of drowsiness or sickness remove to fresh air, keep patient warm and at rest. If unconscious, turn to the recovery position. Seek medical assistance.

Skin Contact: Promptly remove contaminated clothing and immediately wash the affected area with plenty of water to ensure all traces of product have been removed. Any contaminated clothing must be thoroughly cleaned before re-using. Seek medical advice if irritation persists or if blistering occurs.

Eye Contact: Immediately flush with copious amounts of clean water for at least 15 minutes, with the eyelids held open. Seek medical attention.

Ingestion: Wash out mouth with water. Keep patient at rest and obtain medical attention. DO NOT INDUCE VOMITING.

5. Fire Fighting Measures

Suitable Extinguisher Media: The product is not combustible, however if it is involved in a fire, use water spray, foam, dry powder, carbon dioxide or sand.

Unsuitable Extinguishing Media: Water jet.

Exposure Hazards: Contact with certain metals liberates highly flammable hydrogen gas which may form an explosive mixture with air. When involved with fires, highly toxic fumes of chlorine may be evolved.

Special Protective Equipment: Full face, positive pressure, self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions: Wear protective equipment as specified in Section 8. Do not eat, drink or smoke. Avoid contact with eyes and skin. Avoid inhaling vapours.

Environmental Precautions: Eliminate all ignition sources. Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.

Spillages: Cordon off area. Absorb/contain spillage using inert absorbent granules, sand or earth. The product may be neutralised with lime/cement or washing soda. Transfer collected material to heavy-duty plastic/steel drums and keep in a well-ventilated place for subsequent safe disposal. See Section 13.

7. Handling and Storage

Handling: No special precautions are necessary. When handling unopened containers follow any relevant manual handling guidance. The product is a low viscosity liquid and may present a splashing hazard during use. Refer to Sections 6 and 8 if exposure to product is possible. Wash thoroughly with soap and water before eating, drinking or smoking, and after work.

Storage: Store in original containers in a well ventilated area away from heat, ignition sources or open flame. Protect from frost and direct sunlight.

8. Exposure Controls / Personal Protection

Occupational Exposure Standards: Hydrogen chloride (gas and aerosol mist):
8 Hour TWA 1ppm, 15min STEL 5ppm OES.

Engineering Control Measures: Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection and may include physical containment and good ventilation.

Respiratory protection: Approved respirator and filter medium for acid gas and particulates if engineering controls are unlikely to control exposure below the relevant exposure standards. All items must conform to EN149 and should be suitable for the levels of contamination present in the workplace.

Hand Protection: Wear Nitrile, PVC or Natural Rubber gloves or gauntlets. These must be manufactured to EN374. The material breakthrough time should be stated by the glove manufacturer, and must be observed at all times.

Eye Protection: Splash proof goggles conforming to BS 2092.

Body Protection: Wear suitable impervious overalls.
Foot Protection: Wear chemical resistant safety footwear.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Appearance:	Colourless to yellow/brown, low viscosity liquid.	Boiling Point:	108°C
Odour:	Pungent	Vapour Pressure @ 20°C:	5-120 mbar
pH:	<1	Evaporation Rate (Butyl Acetate = 1):	As Water
Flash Point:	Not flammable	Flammable Limits in Air:	Upper: N/A Lower: N/A
Solubility:	Fully miscible in water	Autoignition Temperature:	N/A
Flammability:	Not Flammable		
Specific Gravity:	1.1		

10. Stability and Reactivity

Stability: Stable under normal conditions (see Section 7).
Materials to Avoid: Reacts with oxidising agents to liberate toxic chlorine gas. Contact with other acids will liberate fumes that may be toxic. Will react with concentrated alkalis with the generation of much heat. May liberate harmful gases from certain chemical salts (eg cyanides, nitrites, sulphites, acetylides and carbides).

Hazardous Decomposition Products: Reacts with metals to liberate hydrogen gas, which is highly flammable and may form an explosive mixture with air. Reactions may liberate toxic fumes of chlorine gas or corrosive fumes of hydrogen chloride.

11. Toxicological Information

There is no data available on the product itself. The following is derived from concentrated hydrochloric acid.

Acute Effects:

Inhalation: Liquid and vapour may cause severe irritation and corrosion of the respiratory tract.
Skin: Liquid and vapour may cause severe irritation and corrosion, resulting in ulceration and possibly dermatitis
Eye: Liquid and vapour may cause severe irritation and corrosion, resulting in conjunctival irritation and corneal damage.

Ingestion: Liquid and vapour may cause severe irritation and corrosion of the digestive tract. May cause haematemesis, oesophageal and gastric perforation. Aspiration during swallowing or vomiting will damage the lungs.

Chronic Effects:

Prolonged or frequent exposure to concentrations above the Occupational Exposure Standard may cause erosion of the teeth and pulmonary oedema.

12. Ecological Information

There is no data available on the product itself. The following is derived from concentrated hydrochloric acid.

Practically non-toxic to living resources; 96hr LC50 = 100-1000mg/ltr.

Ecotoxicity: Toxic to aquatic forms. 280ppm in freshwater and 100ppm in saltwater can be lethal. Lowering of pH below 5 will induce fatalities in aquatic life. There is no evidence of bioaccumulation or tainting of seafood.

Degradation: No reaction with air, salt or fresh water, but generates heat on dilution.

Partitioning: Log P octanol/water = 0.3

13. Disposal Considerations

Waste product must not be discharged directly to drains or waterways without treatment. Disposal of product, solid waste and packaging should always comply with local, national or EU regulations and in compliance with the Environmental Protection (Duty of Care) Regulations 1991, and be undertaken by an authorised contractor.

14. Transport Information

UN Number:	1789	Packaging Group:	III
ROAD		AIR	
ADR Class:	8	Air Transport Number:	8
ADR Hazard Number:	80	Packaging Instruction:	821
SEA			
IMDG Class:	8		
IMDG Page Number:	8183		
Marine Pollutant:	No		
Proper Shipping Name:	Hydrochloric acid (20%)		

15. Regulatory Information

EU Classification and Labelling Particulars: Not classified as hazardous and therefore does not require labelling.

Designated Name: CHEMCLEAN

Classification: Irritant

Indication(s) of Danger: Xi

Risk and Safety Phrases:

R36/37/38: Irritating to eyes, respiratory system and skin.
S1/2: Keep locked up and out of the reach of children.
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

UK Guidance Publications: EH40; Occupational Exposure Limits, HSE. Revised annually.
EH26; Occupational Skin Diseases - Health and Safety Precautions, HSE.

UK Legislation: Health and Safety at Work, etc Act, 1974, and relevant Statutory Provisions.
Control of Substances Hazardous to Health Regulations, 1999.
The Manual Handling Operations Regulations, 1992.
The Personal Protective Equipment at Work Regulations, 1992.
Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002 - CHIP 3.

16. Other Information

Full Text of R-Phrases Referred to above:

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

Training Advice: Do not use unless trained to do so. Refer to the Technical Data Sheet for the product.

Recommended Uses: For professional use only. This product is designed for use as an acidic cleaner for concrete surfaces.

Further Information: This Safety Data Sheet was compiled in accordance with EU Directives 67/548/EEC and 1999/45/EC. Reference was also made to the above legislation and guidance publications.

MSDS First Issued: 6th November 1989

MSDS Revised: 23rd January 2003

Changes in this Version: All sections revised to comply with CHIP 3 provisions.

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Disclaimer: The information in this document is offered for general health and safety guidance only and is not intended to be a definitive source of advice, nor does it constitute a risk assessment, for which the user is responsible. All information provided in this document is believed to be accurate to the best of our knowledge. Users of the products referred to should observe the recommendations, conditions and instructions relating to any relevant product label, usage information, consent or approval in force at the time. Further and more specific information may be obtained from the supplier on request.