

HDAC

Heavy Duty Acidic Cleaner

Deep Cleaning Action For Most Surfaces Including:

- Flamed & Honed Granite
- Cleft & Honed Slate
- Flamed & Honed Limestone
- Unglazed Ceramic Tile
- Sanded Grout
- Concrete
- Tumbled & Honed Marble
- Quarry Tile
- Ceramic Tile
- Porcelain Tile
- Cast Stone
- Masonry

Special Features

- Fast Acting
- Easy-to-Use
- Interior & Exterior
- Less Expensive

PRODUCT DESCRIPTION

KEEP OUT OF REACH OF CHILDREN. HDAC (Heavy Duty Acidic Cleaner) is a fast acting, heavy duty acid cleaner for textured, non polished, natural and man made surfaces. HDAC removes sanded grout haze and mortar residue, joint cement, lime & hard water deposits, efflorescence, rust and other heavy dirt and grime. HDAC is suitable for interior and exterior use.

Sample Testing

Due to the differences of each material, several inconspicuous test patches should be completed to assure maximum performance. **User must determine suitability of the product for their intended use.**

Protect Neighboring Surfaces

Always protect neighboring surfaces including wood, carpet, metal, landscaping and other surfaces.

APPLICATION INSTRUCTIONS

Read entire label and PDS/MSDS before using.

Thoroughly wet the surface to be cleaned with clean water. HDAC may be applied with a clean mop or acid resistant brush. Dilute HDAC with water. Start with 1 part HDAC and 10 parts water. For stronger solutions reduce the water down to as low as 3 parts. Allow HDAC to sit on the surface for 1 - 5 minutes while agitating with a brush. Do not allow HDAC to dry on the surface. Work small areas. Extract all dirty remains with a wet vacuum system. Multiple applications may be necessary. After extracting HDAC solution, rinse thoroughly with clean water. Once surface is complete, rinse areas with **Tile & Stone Cleaner** and clean water (20 - 1) to clean and neutralize acid as directed.

If a non acid deep cleaning is necessary use **Liquid Powlite** as directed.

Light Cleaning: Use **Tile & Stone Cleaner, Porcelain & Ceramic Tile Cleaner, Grout Cleaner** or **Limestone/Travertine Soap** as directed.

Special Notes

Acids and the vapors, no matter how mild, may etch, lighten or alter the color of tile, grout, cementitious and natural stone surfaces. Repeated acid washing may damage some surfaces.

Acid and the vapors, no matter how mild, may damage metal, carpet, leather, vinyl, wood and other surfaces. Take caution in transporting in original, upright and sealed container.

Avoid contact with metals.

Do not mix with ammonated cleaners as harmful fumes may result.

Allow all new grout, concrete, cement or masonry to cure per the manufacturer's specification before using HDAC.

Water, Stain & Slip Protection

To protect cleaned areas from future soiling, staining and increase static coefficient of friction, we recommend applying the appropriate **Miracle Penetrating Sealer/Impregnator**.

Color and Gloss Enhancement

For added color with "Textured and Non polished" surfaces, **511 Seal & Enhance** or **Mira Matte** may be used. For porous type "Pavers", **511 Seal & Enhance** may be used as directed.

Coverage

Coverage will vary depending on density, porosity, texture, surface absorption, weather, time solution left on the surface and application method. Used as directed, HDAC will cover approximately 1,000 - 2,000 square feet per gallon (90 - 185 square meters per 3.785 liters).

MAINTENANCE

For ongoing maintenance instructions please refer to **Miracle Sealants Care Guide**. Refer to the **Miracle Sealants Product Recommendation Chart** for specific product recommendations.

Storage

Store HDAC in the original container, properly sealed to avoid contamination and evaporation. Stored at 77° F (25° C), HDAC will have a shelf life of 12 months. Do not allow to freeze.

Technical Support

For additional technical support, contact Miracle Sealants Company at 1-800-350-1901 or 626-443-6433 ext. 3013

Office Hours

Monday - Friday from 8:30 am - 5:00 pm PT.
1-626-443-6433 or 1-800-350-1901 • Fax: 1-626-443-1435
website: www.miraclesealants.com

Product Damaged During Transportation

If product is damaged during transportation contact Info Trac @ 1-800-535-5053

Additional Products

Miracle Sealants Company offers a complete line of water & stain repellents, sealers, cleaner, polishing compounds, diamond abrasives, machinery and accessories for the tile, stone, concrete, metal, fabric and carpet professional or do-it yourself specialist.

Caution

HDAC contains hydrochloric acid. Keep away from eyes and skin. Do not inhale or swallow. Chemical resistant gloves and respirators should be worn at all times. Use in a well ventilated area. Good ventilation means that fresh air is flowing in such a way as to feel a slight breeze. Continue to ventilate until odors are completely eliminated. Inhaling the odors can be harmful. Keep away from heat and open flames. Avoid prolonged contact with skin. Keep small children and pets out of area until product or surfaces has thoroughly dried. **Refer to MSDS for additional information.**

Warranty

Instructions are a condensed guide and should not be considered complete. In the event of failure, the only obligation of Miracle Sealants Company shall be to replace such products proven to be defective. **Before using, user shall determine the suitability of the product for their intended use. User assumes all risks and liability whatsoever in connection therein.** Neither seller nor manufacturer shall be liable for any injury or inability to use this product.



Safety Data Sheet

Issue Date 01-Feb-2012

Revision Date: 14-Oct-2013

Version 1

1. IDENTIFICATION

Product Identifier

Product Name HDAC

Other means of identification

SDS # MSC-020

UN/ID No NA1760

Recommended use of the chemical and restrictions on use

Recommended Use Heavy Duty Cleaner.

Details of the supplier of the safety data sheet

Supplier Address
 Miracle Sealants Company
 12318 Lower Azusa Road
 Arcadia, CA 91006

Emergency Telephone Number

Company Phone Number 1-626-443-6433 (Phone)
 1-626-443-1435 (Fax)

Emergency Telephone (24 hr)

For product spills, leaks or exposures call:
 Infotrac 1-800-535-5053 (North America) or 1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Appearance Amber liquid

Physical State Liquid

Odor acrid

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

Signal Word

Danger

Hazard Statements

Fatal if inhaled
 Causes severe skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear respiratory protection
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 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 or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Hydrochloric acid	7647-01-0	Proprietary

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Immediately call a POISON CENTER or doctor/physician.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects

Symptoms	Causes severe skin burns and eye damage. Fatal if inhaled. Inhalation causes irritation and burning to nose and throat. Ingestion may cause severe burns to mouth, throat or stomach.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

None known.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO₂).

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment as required.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13, Disposal Considerations, for additional information. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Steps to be taken in case material is released or spilled: soak up with inert absorbent material. Scoop up and place in a proper waste disposal container.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash face, hands, and any exposed skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Protect from sunlight. Protect from freezing. Do not store above 110°F. Keep out of the reach of children. Store locked up.

Incompatible Materials Strong oxidizers. Ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Splash proof chemical safety goggles.

Skin and Body Protection Protective gloves: Plastic or rubber, chemical resistant
Protective clothing or equipment: Chemical resistant clothing.

Respiratory Protection Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2).

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Work hygienic practices: Wash hands thoroughly before handling foodstuffs, liquids or tobacco products. Use common sense and care around chemicals. Never mix this product with other chemicals. Consult your supervisor for all other hygienic and safety practices. All practices depend on your specific business. Directions for use normally found on label which will dictate engineering and control measures. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	acid
Appearance	Amber liquid	Odor Threshold	Not determined
Color	Amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	0.5-2.0	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	> 100 °C / >212 °F	
Flash Point	None	TOC
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Liquid-not applicable	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.125	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	

Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined
VOC Content (%)	0% by weight

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials

Strong oxidizers. Ammonia.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Fatal if inhaled.

Ingestion Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Hydrochloric acid 7647-01-0	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h
Ethoxylated Polyoxypropylene 9003-11-6	= 5700 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested. Group 3 IARC components are "not classifiable as human carcinogens".

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrochloric acid 7647-01-0		Group 3		

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrochloric acid 7647-01-0		282: 96 h <i>Gambusia affinis</i> mg/L LC50 static		

Persistence/Degradability

Not determined

Bioaccumulation

Not determined

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods**Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN/ID No NA1760
Proper Shipping Name Compounds, cleaning liquid (Hydrochloric acid)
Hazard Class 8
Packing Group II

IATA
UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Hydrochloric acid)
Hazard Class 8
Packing Group II

IMDG
UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Hydrochloric acid)
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

TSCA All ingredients are listed or exempt from listing on Chemical Substance Inventory

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrochloric acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Hydrochloric acid - 7647-01-0	7647-01-0	Proprietary	1.0

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid 7647-01-0 (Proprietary)	5000 lb			X

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrochloric acid 7647-01-0	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards Not determined
	3	0	0	Personal Protection Not determined
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	
	3	0	0	

Issue Date 01-Feb-2012
Revision Date: 14-Oct-2013
Revision Note New format

Disclaimer

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.

End of Safety Data Sheet