



World Class Cleaning & Hygiene Solutions™

# NATIONAL CHEMICAL LABORATORIES, INC.

## SAFETY DATA SHEET

### Section 1 - Identification

**Product Identifier** TWISTER™ RTU (1-5) Mineral Deposit / Grout Film Remover  
**Other means of identification** 2517 (1-5)  
**Recommended use** Mineral Deposit / Cement Film Remover  
**Recommended restrictions** For commercial and industrial use only.

#### Manufacturer / Importer / Supplier / Distributor Information

**Company Name** National Chemical Laboratories of PA, Inc.  
**Address** 401 N. 10th Street - Philadelphia, PA 19123  
**Telephone** 1 (215) 922-1200  
**Supplier Email** info@nclonline.com  
**Contact** CHEM-TEL  
**Emergency Phone** 1 (800) 255-3924

### Section 2 - Hazard(s) Identification

	Classification	Category
Physical Hazards	Not Classified	
Health Hazards	Serious eye damage/eye irritation	1
	Skin corrosion/irritation	1B
OSHA defined hazards	Not Classified.	

#### Label Elements

##### Hazard Symbol



**Signal Word** Danger  
**Hazard Statement** Causes severe skin burns and eye damage. May cause respiratory irritation.

#### Precautionary statement

**Prevention** Keep only in original container. Use only in a well-ventilated area. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.  
**Response** If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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. Wash contaminated clothing before reuse.

**Storage** Store locked up. Store in corrosive resistant container with a resistant inner liner

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

### Section 3 - Composition/Information on ingredients

#### Mixture

Hazardous Components	Ingredient Name	CAS #	%
	Hydrochloric Acid	7647-01-1	0.1 - 2

### Section 4 - First-aid Measures

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center if symptoms develop or persist.

**Skin contact** Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately

**Ingestion** Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

#### Most Important symptoms or effects, acute and delayed

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Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

## Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

## General Information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## Section 5 - Fire-fighting measures

<b>Suitable extinguishing media</b>	RTU product will not support combustion. Water fog. Foam. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, Corrosive vapors and gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment /instructions</b>	Move containers from fire area if you can do it without risk.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Specific Methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

## Section 6 - Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures.</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	This product is miscible in water. Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

## Section 7 - Handling and storage

<b>Precautions for safe handling</b>	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## Section 8 - Exposure control/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Hydrochloric Acid (CAS 7647-01-1)	TWA	7 mg/m <sup>3</sup> , 5 ppm	

#### US. ACGIH Threshold Limit Values

Component	Type	Value	Form
Hydrochloric Acid (CAS 7647-01-1)	TLV-C	2ppm, URT irr	

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** If use of product risks exposure to contact, wear safety glasses with side shields.

#### Skin protection

**Hand protection** Impervious gloves are recommended for prolonged use.

**Other** If use of product risk exposure to contact, wear suitable protective clothing.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment. No personal respiratory protective equipment

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<b>Thermal hazards</b>	normally required if used with adequate ventilation.
<b>General hygiene considerations</b>	Wear appropriate thermal protective clothing, when necessary. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## Section 9 - Physical and chemical properties

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Form</b>	Clear, thin liquid.
<b>Color</b>	Colorless.
<b>Odor</b>	Slight, irritating odor.
<b>Odor threshold</b>	Not available.
<b>pH</b>	<1
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Flash point</b>	None to boiling.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Similar to water.
<b>Vapor density</b>	Similar to water.
<b>Relative density</b>	1.01 ± 0.01
<b>Relative density temperature</b>	75 °F (23.9 °C)
<b>Solubilities (water)</b>	Completely soluble
<b>Partition Coefficient n-octanol/water</b>	Not available.
<b>Auto-ignition temperature</b>	Not Available.
<b>Decomposition temperature</b>	Not Available.
<b>Viscosity</b>	< 10 cSt
<b>Viscosity Temperature</b>	75 °F (23.9 °C)

## Section 10 - Stability and reactivity

<b>Reactivity</b>	Reacts violently with strong alkaline substances. This product may react with reducing agents.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to Avoid</b>	Do not mix with other chemicals. Contact with incompatible materials.
<b>Incompatible materials</b>	Bases. Amines. Alkanolamines, Isocyanates, Copper, Metals, Oxidizing or Reducing agents.
<b>Hazardous Decomposition Products</b>	Hydrogen chloride.

## Section 11 - Toxicological information

<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Causes digestive tract burns.
<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

### Information on toxicological effects.

<b>Acute toxicity</b>	May be harmful if swallowed.					
<b>Components</b>	<b>Level</b>	<b>Type</b>	<b>Code</b>	<b>Species</b>	<b>Results</b>	
Hydrochloric Acid (CAS 7647-01-1)	Acute	Dermal	LD50	Rabbit	>5010 mg/kg	
	Acute	Oral	LD50	Rat	700 mg/kg	
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.					

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<b>Serious eye damage/ eye irritation</b>	Causes serious eye damage.
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## Section 12 - Ecological Information

<b>Ecotoxicity</b>	Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.			
<b>Component(s)</b>	Hydrochloric Acid (CAS 7647-01-1)			
<b>Aquatic</b>				
Level	Type	Code	Species	Test Results
Acute	Fish	LC50	Leuciscus idus	862 mg/l, 48 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.			
<b>Bioaccumulative potential</b>	Not established.			
<b>Mobility in soil</b>	No data available.			
<b>Mobility in general</b>	No data available.			
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.			

## Section 13 - Disposal considerations

<b>Disposal instructions</b>	Dispose in accordance with applicable federal, state, and local regulations.
<b>Local disposal regulations</b>	Dispose of in accordance with local regulations.
<b>Hazardous waste code</b>	Waste codes should be assigned by the user based on the application for which the product was used.
<b>Waste from residues / unused products</b>	Dispose in accordance with all applicable regulations.
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## Section 14 - Transport information

<b>General Information</b>	This product is customer diluted for on site use only. No transportation information is anticipated or provided. The regulatory transport classification of the product without consideration to dilution strength, packaging, quantity, or modal restrictions and exceptions can not be anticipated. It is the user's responsibility to determine the appropriate packaging and modal requirements and/or limitations for the product quantity being shipped.
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## Section 15 - Regulatory Information

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
<b>TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D)</b>	Not regulated.	
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.	
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>		
Components	Result	
Hydrochloric Acid (CAS 7647-01-1)	LISTED	
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<b>Hazard Categories</b>	Immediate Hazard	Yes
	Delayed Hazard	No
	Fire Hazard	No

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Pressure Hazard No  
 Reactivity Hazard Yes

**SARA 302 Extremely hazardous substance**

Chemical name	CAS #	Reportable Quantity	Threshold Planning Quantity	Threshold Planning quantity, lower value	Threshold Planning quantity, upper value
Hydrochloric Acid	7647-01-1	5000	500		

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS #	% by wt.
Hydrochloric Acid	7647-01-1	0.1 - 2

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Components

Hydrochloric Acid (CAS 7647-01-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)** Hydrochloric Acid (CAS 7647-01-0).

**Drug Enforcement Administration (DEA), List 1 2** Hydrochloric Acid (CAS 7647-01-0) 20

**Exempt Chemical Mixtures (21 CFR 1310.12(c))** %WV

**DEA Exempt Chemical Mixtures Code Number** Hydrochloric Acid (CAS 7647-01-0)  
6545

**Safe Drinking Water Act (SDWA)** Not regulated.

**Food and Drug Administration (FDA)** Not regulated.

**US state regulations**

**US.Massachusetts RTK - Substance List** Components  
Hydrochloric Acid (CAS 7647-01-1)

**US.New Jersey Worker and Community Right-to-Know Act** Components  
Hydrochloric Acid (CAS 7647-01-1)

**US.Pennsylvania RTK - Hazardous Substances** Components  
Hydrochloric Acid (CAS 7647-01-1)

**US.Rhode Island RTK** Components  
Hydrochloric Acid (CAS 7647-01-1)

**US - California Proposition 65** This material is not know to expose you to a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**International Inventories**

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCs)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes
Unites States Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

\*A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Section 16 - Other information, including date of preparation or last version**

Revision date 6/1/2023

Version # 03

**Disclaimer**

The information contained herein was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond the manufacturer's control, it is the user's responsibility both to determine safe conditions for use of this product and to assume liability for loss, injury, damage or expense arising from the product's improper use. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this SDS. Various government agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this SDS. The user should review these regulations to ensure full compliance.