

SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: Calci-Clear Rapid

Product Number: HS-105

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer

National Diagnostics
305 Patton Drive
Atlanta, GA 30036
(404) 699-2121
(800) 526-3867
info@nationaldiagnostics.com

1.4 Emergency Telephone Number

ChemTel Inc.

Contract number MIS8894340
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)
01-800-099-0731 (Mexico)
400-120-0751 (China)
000-800-100-4086 (India)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
+1-813-255-3924 (All other regions)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H290 - Corrosive to Metals
H314 - Skin Corrosion/Irritation (Category 1B)
H335 - Specific Target Organ Toxicity, Single Exposure (Category 3)

2.2 Label Elements

GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



DANGER

H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
P260 - Do not breathe dust/fumes/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P302+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse SKIN with water/shower.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P309+P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P501 - Dispose of contents/container according to local regulations.

2.3 Other Hazards

None found.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Names/Description

Buffered inorganic acid.

Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Hydrochloric Acid	3 - 5	7647-01-0	231-595-7	H290, H314, H335

SECTION 4 - FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

Do not induce vomiting. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation

Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.

Ingestion

The lips and mouth usually turn white, and later brown. There is pain in the throat and stomach, difficulty swallowing, intense thirst, nausea, and vomiting, followed by diarrhea, respiratory distress, kidney inflammation, and in severe cases, collapse and death.

Skin

Can cause redness, pain, and severe skin burns.

Eyes

Redness, pain. Prolonged or permanent visual impairment.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use media appropriate to the primary cause of fire.

5.2 Special Hazards Arising from the Substance/Mixture

Hazardous Combustion Products

When heated to decomposition, emits toxic chlorine fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Hazardous Decomposition Products

When heated to decomposition, emits toxic chlorine fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

5.3 Advice for Firefighters

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further Information

No data available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

6.3 Methods and Materials for Containment and Cleaning Up

Ventilate area and isolate spill. Neutralize with alkaline material (soda ash, lime) then absorb with an inert material and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

6.4 References to Other Sections

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Wear special protective equipment (Sec. 8) where exposures may exceed established levels.

7.2 Conditions for Safe Storage (including any incompatibles)

Store in a cool, dry, ventilated storage area. Protect from physical damage. Keep out of direct sunlight and away from heat and incompatible materials.

Incompatibles

A strong mineral acid, substance is highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

7.3 Specific End Uses

Investigational research by professional users

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

8.1 Control Parameters

ACGIH Threshold Limit Value (TLV): 5 ppm

OSHA Permissible Exposure Limit (PEL): 5 ppm

8.2 Exposure Controls

Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

Respiratory Protection

If exposure limits are exceeded, wear a full-face respirator with organic vapor cartridge and high efficiency dust mist filter. Beyond fifty times exposure limits or when exposure levels are not known, wear a full-face piece positive pressure respirator.

Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Clear, colorless solution	b. Odor	None
c. Odor Threshold	N.A.	d. pH	Acid
e. Melting/Freezing Point (°C)	0	f. Boiling point (°C)	105
g. Flash Point (°C)	N.A.	h. Evaporation Rate	1.0 (1 = H ₂ O)
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	N.A.
k. Vapor Pressure	N.A.	l. Vapor Density (Air = 1)	N.A.
m. Relative Density	1.05	n. Water Solubility	Complete
o. Partition Coefficient n-octanol/water	Mixture	p. Autoignition Temperature (°C)	N.A.
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	No data available.
s. Explosive Properties	N.A.	t. Oxidizing Properties	N.A.

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

Acidic solution. Reacts strongly with alkali. Will corrode metals.

10.2 Chemical Stability

Stable under ordinary conditions of use and storage.

10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

10.4 Conditions to Avoid

Heat, direct sunlight, incompatibles.

10.5 Incompatible Materials

A strong mineral acid, substance is highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

10.6 Hazardous Decomposition Products

When heated to decomposition, emits toxic chlorine fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product LD50 Values

Oral Rat LD50 (mg/kg)

> 5000

Dermal Rabbit LD50 (mg/kg)

No Data

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Hydrochloric Acid	No	No	3

Potential Health Effects

Inhalation

Corrosive! Inhalation of excessive concentrations of vapor immediately produces severe irritation of the upper respiratory tract.

Ingestion

Corrosive! Swallowing can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. G.I. Tract may perforate in extreme cases. Asphyxia may occur from edema of the larynx.

Skin

Contact causes severe burns unless immediately washed off. Repeated contact with dilute solutions may lead to dermatitis. Exposure to the concentrated vapor may result in burns or dermatitis.

Eyes

Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

Carcinogenicity

Not listed as a known or anticipated carcinogen by NTP. Listed by IARC as category 3, which means that the substance is unclassifiable as to its carcinogenicity in humans.

Mutagenicity

Chromosome damage, inhalation: 100 ppm, 24 hrs. Oral - 100 ppm.

Reproductive Toxicity

No information found.

Teratogenic Effects

No information found.

Routes of Entry

Ingestion, inhalation, skin and eye contact.

Target Organ Statement

Asthma, bronchitis, emphysema and other lung conditions and chronic nose, sinus or throat conditions may be aggravated by exposure. Exposure may aggravate existing skin and/or eye conditions on contact.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (bluegill, 96 hr) pH 3.5	EC50(dap[hnia) pH 4.9	EC50 (72hr) pH 4.8	EC50 pH 5.0-5.5
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

12.2 Persistence and Degradability

No data

12.3 Bioaccumulative Potential

No data

12.4 Mobility in Soil

No data

12.5 Results of PBT and vPvB Assessment

not PBT / vPvB

12.6 Other Adverse Effects

None

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	1789	N.A.	1789	1789
14.2 Shipping Name	Hydrochloric Acid Solution	Forbidden (due to packaging performance testing -	Hydrochloric Acid Solution	Hydrochloric Acid Solution
14.3 Hazard Class	8	N.A.	8	8
14.4 Packing Group	II	N.A.	II	II
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Hydrochloric Acid	No	No	No	Yes	Yes

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

SECTION 16 - OTHER INFORMATION

Revisional Updates

4/26/2019 - Updated Section 1.4

6/30/2015 - Updated Section 2.2

8/28/2013 - Released Version 1.0

NFPA Codes

Health 3 Flammability 0 Reactivity 0

Dangers

Hydrochloric Acid

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation.

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.