

# 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

Product Number: HS-104

### 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]

H314 - Skin Corrosion/Irritation (Category 1B)

### 2.2 Label Elements

#### GHS LABEL ELEMENTS AND CLASSIFICATION

##### GHS Label Elements



#### DANGER

H314 - Causes severe skin burns and eye damage.  
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 organic acid.

#### Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Formic Acid	10 - 15	64-18-6	200-578-1	H314

## 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**

Sore throat. Cough. Burning sensation. Shortness of breath. Laboured breathing. Unconsciousness. Symptoms may be delayed.

### **Ingestion**

Abdominal pain, nausea, diarrhea and vomiting can occur, leading to shortness of breath and death.

### **Skin**

Symptoms of redness, pain, and severe burn can occur.

### **Eyes**

Pain, Redness. Severe deep burns. Blurred vision.

## **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**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

#### **Hazardous Decomposition Products**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

#### **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**

Collect leaking liquid in sealable containers. Cautiously neutralized spilled liquid with weak alkaline solution. Then wash away with plenty of water.

### **6.4 References to Other Sections**

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

## **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.

### **7.2 Conditions for Safe Storage (including any incompatibles)**

Keep in a tightly closed container, stored in a cooled, dry, ventilated area.

### Incompatibles

Sulfuric acid, strong caustics, furfuryl alcohol, hydrogen peroxide, strong oxidizers and bases. Reacts explosively with oxidizing agents.

### 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 (TWA)

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 the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

#### 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 liquid	b. Odor	None
c. Odor Threshold	N.A.	d. pH	Acidic
e. Melting/Freezing Point (°C)	0	f. Boiling point (°C)	105
g. Flash Point (°C)	N.A.	h. Evaporation Rate	1.0
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	Soluble
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

Incompatibles.

### 10.5 Incompatible Materials

Sulfuric acid, strong caustics, furfuryl alcohol, hydrogen peroxide, strong oxidizers and bases. Reacts explosively with oxidizing agents.

### 10.6 Hazardous Decomposition Products

Carbon dioxide and carbon monoxide may form when heated to decomposition.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Product LD50 Values

#### Oral Rat LD50 (mg/kg)

11000

## Dermal Rabbit LD50 (mg/kg)

No Data

## Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Formic Acid	No	No	None

## Potential Health Effects

### Inhalation

Inhalation of vapors can cause severe irritation of nose, throat, and upper respiratory tract. Inhalation of higher concentrations may cause central nervous system effects and lung damage.

### Ingestion

Causes serious burns and corrosion of the mouth, throat, and esophagus, with immediate pain and difficult swallowing. Severe poisonings may cause shock, kidney damage.

### Skin

Corrosive. Severely irritating to the skin.

### 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 carcinogen by NTP or IARC.

## Mutagenicity

No information found.

## Reproductive Toxicity

No information found.

## Teratogenic Effects

No information found.

## Routes of Entry

Inhalation, ingestion, skin contact.

## Target Organ Statement

No information found.

## SECTION 12 - ECOLOGICAL INFORMATION

### 12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96 hr, zebrafish) 130mg/l	EC50 (48hr, daphnia) 450mg/l	EC50>1000mg/l	NOEC 72mg/l
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	LD50(redwing blackbird) 111mg/kg	No data	No data	No data

### 12.2 Persistence and Degradability

Readily biodegradable, 100% elimination in 14 days

### 12.3 Bioaccumulative Potential

No data

### 12.4 Mobility in Soil

log Koc 1.49

### 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	3265	N.A.	3265	3265
14.2 Shipping Name	Corrosive Liquid, Acidic, Organic, N.O.S. ( formic acid )	Forbidden ( due to packaging performance testing -	Corrosive Liquid, Acidic, Organic, N.O.S. ( formic acid )	Corrosive Liquid, Acidic, Organic, N.O.S. ( formic acid )
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
Formic Acid	Yes	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 - Released Version 1.0

### NFPA Codes

Health 3 Flammability 0 Reactivity 0

### Dangers

#### Formic Acid

H314 - Causes severe skin burns and eye damage.

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