



## Suma<sup>®</sup> Cal-X Descaler

Revision: 2020-09-01

Version: 03.0

### 1. IDENTIFICATION

**Product name:** Suma<sup>®</sup> Cal-X  
Descaler

**Product Code:** 101103005

**SDS #:** MS0801604

**Recommended use:**

- Industrial/Institutional
- Descaler
- This product is intended to be diluted prior to use

**Uses advised against:** Uses other than those identified are not recommended

**Manufacturer, importer, supplier:**

US Headquarters Diversey, Inc. 1300 Altura Rd., Suite 125 Fort Mill, SC 29708 Phone: 1-888-352-2249 SDS Internet Address: <a href="https://sds.diversey.com">https://sds.diversey.com</a>	Canadian Headquarters Diversey Canada, Inc. 6150 Kennedy Road Unit 3 Mississauga, Ontario L5T 2J4 Phone: 1-800-668-7171
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**Emergency telephone number:** 1-800-851-7145; 1-651-917-6133 (Int'l)

### 2. HAZARDS IDENTIFICATION

#### Classification for the undiluted product

Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1
Metal Corrosion:	Category 1



**Signal word:** **Danger.**

#### Hazard Statements

**CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE. MAY BE CORROSIVE TO METALS.**

#### Precautionary Statements

Causes burns/ serious damage to mouth, throat and stomach. Keep container tightly closed. Keep only in original container. Do not breathe vapors. Avoid contact with eyes, skin and clothing. Wash affected areas thoroughly after handling. Wear protective gloves, protective clothing and eye or face protection. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes. Wash contaminated clothing before reuse. 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 for at least 15 minutes. Immediately call a Poison Center (1-800-851-7145) or physician. Absorb spillage to prevent material damage. Store in corrosive-resistant container with a resistant inner liner. Dispose of in accordance with all federal, state and local applicable regulations. SUPPLEMENTAL INFORMATION: DO NOT MIX WITH AMMONIA, BLEACH OR OTHER CHLORINATED COMPOUNDS. Mix only with water. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in spattering and excessive heat.

**Health hazards not otherwise classified (HHNOC)** - Not applicable  
**Physical hazards not otherwise classified (PHNOC)** - Not applicable

**Classification for the diluted product @ 1:16**

This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

**Hazard and Precautionary Statements**

None required.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Classified Ingredients**

Ingredient(s)	CAS #	Weight %
Nitric acid	7697-37-2	7 - 13%
Hydroxyacetic acid	79-14-1	1 - 5%
2-Propenoic acid, methyl ester, reaction products with 2-ethyl-1-hexanamine and sodium hydroxide	68610-44-6	> 0.1 - < 1%

### 4. FIRST AID MEASURES

**Undiluted Product:**

**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.

**Skin:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water for at least 15 minutes.

**Inhalation:** IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Ingestion:** IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Drink a cupful of milk or water.

**Most Important Symptoms/Effects:** No information available.

**Immediate medical attention and special treatment needed** Not applicable.

**Diluted Product:**

**Eyes:** Rinse with plenty of water.

**Skin:** No specific first aid measures are required

**Inhalation:** No specific first aid measures are required

**Ingestion:** IF SWALLOWED: Call a Poison Center (1-800-851-7145) or doctor/physician if you feel unwell.

### 5. FIRE-FIGHTING MEASURES

**Specific methods:**

No special methods required

**Suitable extinguishing media:**

The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

**Specific hazards:**

Corrosive material (See sections 8 and 10).

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

**Extinguishing media which must not be used for safety reasons:** No information available.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Put on appropriate personal protective equipment (see Section 8.).

**Environmental precautions and clean-up methods:**

Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

### 7. HANDLING AND STORAGE

**Handling:** Can react to release hazardous gases. Do not mix with other products or chemicals except as directed on the label. Mix only with water. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not taste or swallow. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Absorb spillage to prevent material

damage. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

**Storage:** Store in corrosive-resistant container with a resistant inner liner.

**Aerosol Level (if applicable) :** Not applicable.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines:

Ingredient(s)	CAS #	ACGIH	OSHA
Nitric acid	7697-37-2	4 ppm (STEL) 2 ppm (TWA)	2 ppm (TWA) 5 mg/m <sup>3</sup> (TWA)

### Undiluted Product:

#### Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels.

### Personal Protective Equipment

It is the responsibility of the employer to determine the potential risk of exposure to hazardous chemicals for employees in the workplace in order to determine the necessity, selection, and use of personal protective equipment.

<b>Eye protection:</b>	Chemical-splash goggles.
<b>Hand protection:</b>	Chemical-resistant gloves.
<b>Skin and body protection:</b>	Protective footwear. Wear suitable protective clothing.
<b>Respiratory protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hygiene measures:</b>	Handle in accordance with good industrial hygiene and safety practice.

### Diluted Product:

#### Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels.

### Personal Protective Equipment

<b>Eye protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hand protection:</b>	No personal protective equipment required under normal use conditions.
<b>Skin and body protection:</b>	No personal protective equipment required under normal use conditions.
<b>Respiratory protection:</b>	No personal protective equipment required under normal use conditions.
<b>Hygiene measures:</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b> Liquid	<b>Color:</b> Clear Light Red Pink
<b>Evaporation Rate:</b> No information available	<b>Odor:</b> Product specific
<b>Odor threshold:</b> No information available.	<b>Boiling point/range:</b> Not determined
<b>Melting point/range:</b> Not determined	<b>Decomposition temperature:</b> Not determined
<b>Autoignition temperature:</b> No information available	<b>Solubility:</b> Completely Soluble
<b>Solubility in other solvents:</b> No information available	<b>Relative Density (relative to water):</b> 1.08
<b>Density:</b> <b>Specific gravity:</b> 1.075 Kg/L	<b>Vapor density:</b> No information available
<b>Bulk density:</b> No information available	<b>Vapor pressure:</b> No information available.
<b>Flash point (°F):</b> > 200 °F > 93 °C	<b>Partition coefficient (n-octanol/water):</b> No information available
<b>Viscosity:</b> 2	<b>Elemental Phosphorus:</b> 0.00 % by wt.
<b>VOC:</b> 0 % *	<b>pH:</b> < 2
<b>Flammability (Solid or Gas):</b> Not applicable	<b>Corrosion to metals:</b> Metal corrosive
<b>Sustained combustion:</b> Not applicable	
<b>Explosion limits: - upper:</b> Not determined <b>- lower:</b> Not determined	

### Dilution pH:

< 2

**Dilution Flash Point (°F):** > 200 °F > 93.4 °C

**VOC % by wt. at use dilution:** 0.002 %

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not Applicable

<b>Stability:</b>	The product is stable
<b>Possibility of hazardous reactions:</b>	May vigorously react with strong alkaline products resulting in spattering and excessive heat.
<b>Hazardous decomposition products:</b>	None reasonably foreseeable.
<b>Materials to avoid:</b>	Strong bases. Ammonia. Do not mix with chlorinated products (such as bleach). Do not mix with any other product or chemical unless specified in the use directions. Amines.
<b>Conditions to avoid:</b>	None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure:

Skin contact, Inhalation, Ingestion, Eye contact

### Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

**Skin contact:** Unlikely to be irritant in normal use.

**Eye contact:** Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness, watering, blurred vision or loss of vision.

**Ingestion:** Causes burns/ serious damage to mouth, throat and stomach. Symptoms may include stomach pain and nausea.

**Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.

**Sensitization:** No known effects.

**Target Organs (SE):** None known

**Target Organs (RE):** None known

### Numerical measures of toxicity

**ATE - Oral (mg/kg):** >5000

**ATE - Inhalatory, mists (mg/l):** >20

**ATE - Inhalatory, vapors (mg/l):** 24

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available.

**Persistence and Degradability:** No information available.

**Bioaccumulation:** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products (undiluted product):** This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**Waste from residues / unused products (diluted product):** This product, when diluted as stated on this SDS, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

**RCRA Hazard Class (undiluted product):** D002 Corrosive Waste

**RCRA Hazard Class (diluted product):** D002 Corrosive Waste

**Contaminated Packaging:** Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

**DOT/TDG/IMDG:** The information provided below is the full transportation classification for this product. This description does not account for the package size(s) of this product, that may fall under a quantity exception, according to the applicable transportation regulations. When shipping dangerous goods, please consult with your internal, certified hazardous materials specialist to determine if any exceptions can be applied to your shipment.

**DOT (Ground) Bill of Lading Description:** UN2031, NITRIC ACID, SOLUTION, 8, II

**IMDG (Ocean) Bill of Lading Description:** UN2031, NITRIC ACID, SOLUTION, 8, II

## 15. REGULATORY INFORMATION

### International Inventories at CAS# Level

TSCA

All components are listed or otherwise exempt

DSL

All components are listed on DSL/NDSL or otherwise exempt.

### RIGHT TO KNOW (RTK)

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Water	7732-18-5	-	-	-	-
Nitric acid	7697-37-2	X	X	X	X
Hydroxyacetic acid	79-14-1	-	-	-	-
2-Propenoic acid, methyl ester, reaction products with 2-ethyl-1-hexanamine and sodium hydroxide	68610-44-6	-	-	-	-

### CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Nitric acid	7697-37-2	7 - 13%	1000	1000	X

Ingredient(s)	CAS #	NPRI
Nitric acid	7697-37-2	X

## 16. OTHER INFORMATION

### NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 3

Flammability 0

Instability 0

Special Hazards -

### Diluted Product:

Health 0

Flammability 0

Instability 0

Special Hazards -

Revision: 2020-09-01

Version: 03.0

Reason for revision:

Not applicable

Prepared by:

North American Regulatory Affairs

Additional advice:

• Does not contain an added fragrance

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U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**November 05, 2024**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 21796  
(FIRST REVISION)

**EXPIRATION DATE: 2026-09-30**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Diversey, Inc.  
Fort Mill, SC
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of nitric acid with inner packagings that exceed 2.5 liters. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.158(f)(3) in that inner packagings with a capacity up to one gallon are authorized, as specified herein.
5. BASIS: This special permit is based on the application of Diversey, Inc. dated June 14, 2024, submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated October 29, 2024.

Tracking Number: 2024105300

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Nitric acid <i>other than red fuming with not more than 20 percent nitric acid</i>	8	UN2031	II

7. SAFETY CONTROL MEASURES:a. PACKAGING: Prescribed packagings are as follows:

(1) Inner packaging: Four (4) one-gallon Ergo HDPE (including PCR HDPE) containers that are each sealed with a 38-mm twist-type white polypropylene cap with poly foam liner, as described in Diversey Inc.'s application dated June 4, 2024, and on file with the Office of Hazardous Materials Safety (OHMS).

(2) Outer packaging: The four (4) inner packagings are further placed in a UN specification 4G fiberboard box meeting the Packing Group II performance criteria.

b. TESTING: The completed package, assembled as for transportation must be of a design that has been successfully tested in accordance with 49 CFR Part 178 at the Packing Group II level.

c. MARKING: Each package, and overpack if used, must be marked: "DOT-SP 21796".

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) —“The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this

special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

A handwritten signature in blue ink, appearing to read "W. Schoonover", is written over a faint, circular official stamp.

for William Schoonover  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: ae