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# LIME AND SCUM REMOVER

**NON-ACID / NON-ABRASIVE**

**DESCRIPTION:**

Dissolves bathroom ring. Cleans bathroom walls, floors, tubs, wash basins, water closets, stainless steel, chrome trim and fixtures, bathroom tile, shower stalls and all porcelain and ceramic surfaces and drinking fountains. Dissolves light to medium lime scale buildup and soap scum.

**DIRECTIONS FOR USE:**

Apply cleaner to sponge previously dampened with water, or spray, then rub over soiled area exerting sufficient pressure to remove dirt. On large areas such as tile floors or shower stalls, this product can be applied directly on the surface and scrubbed with a sponge or floor brush. Rinse or wipe clean with wet sponge or cloth to remove soil residue. Wipe dry with clean cloth.

Rinse hands and arms with water after using this product.

**CAUTION**

**KEEP OUT OF THE REACH OF CHILDREN**

**DO NOT MIX WITH OTHER CHEMICALS**

**COULD BE HARMFUL IF SWALLOWED**

**Only for sale to, use and storage by Service Personnel.**

For best product efficiency keep stock rotated.

Shelf life is 1 year.

Judgments as to the suitability of the information provided herein for the purchaser's purposes are necessarily the purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Iowa Prison Industries extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to the purchaser's intended purposes or for the consequences of its use.

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# SAFETY DATA SHEET

## Lime and Scum Remover

Version 2

Revision Date 3/17/16

US / Z8

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Lime and Scum Remover
Product Use Description	Chelating agent
Chemical characterization	Ethylenediaminetetraacetic acid, tetrasodium salt Aqueous solution
Company	Iowa Prison Industries 406 N HIGH STREET ANAMOSA, IA 52205
Telephone	1-319-462-3547
E-mail address	iastateindustries.com
Emergency telephone	
1-866-923-4913	

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### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	liquid
Color	light yellow
Odor	Slightly ammonia like

#### GHS Classification

Corrosive to Metals, Category 1  
Acute toxicity, Category 4, Inhalation  
Eye irritation, Category 2A  
Specific target organ systemic toxicity- repeated exposure, Category 2, Inhalation

#### GHS Label element



Hazard pictograms  
Signal Word

Warning

Hazard Statements

H290 May be corrosive to metals.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or

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repeated exposure if inhaled.

Precautionary Statements : **Prevention:**  
P234 Keep only in original container.  
P260 Do not breathe mist, vapors or spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 Get medical advice/ attention if you feel unwell.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P390 Absorb spillage to prevent material damage.  
**Disposal:**  
P501 Dispose of contents/container in accordance with local regulation.

## Potential Health Effects

Inhalation : Inhalation of aerosols may cause irritation to mucous membranes.  
Thermal decomposition can lead to release of irritating gases and vapors.  
Harmful if inhaled.

Skin : Causes skin irritation.

Eyes : Causes serious eye damage.

Ingestion : May be harmful if swallowed.

Aggravated Medical Condition : None known.

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

## Carcinogenicity:

**IARC** : Group 2B: Possibly carcinogenic to humans  
Nitrilotriacetic acid, trisodium salt 5064-31-3

**OSHA** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**ACGIH** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous ingredients

Chemical Name	CAS-No.	Classification	Concentration [%]
Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Irrit. 2A; H319 STOT RE 2; H3731	15 - 25
Sodium hydroxide	1310-73-2	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Aquatic Acute 3; H402	.5 - 2.5
Nitilotriacetic acid, trisodium salt	5064-31-3	Acute Tox. 4; H302 Eye Irrit. 2A; H319 Carc. 2; H351	.05 - .5

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

- General advice : Immediate medical attention is required.  
Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.
- Inhalation : If breathed in, move person into fresh air.  
Consult a physician after significant exposure.
- Skin contact : Take off contaminated clothing and shoes immediately.  
Rinse immediately with plenty of water.  
If skin irritation persists, call a physician.
- Eye contact : Rinse with plenty of water.  
Get medical attention immediately. Continue to rinse during transport of patient.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.
- Ingestion : Clean mouth with water and drink afterwards plenty of water.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.

### Notes to physician

- Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

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Treatment : 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.
- Specific hazards during fire fighting / Specific hazards arising from the chemical : Water spray may be ineffective unless used by experienced firefighters.  
Do not allow run-off from fire fighting to enter drains or water courses.
- Combustion products : No hazardous combustion products are known
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

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## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment.  
Ensure adequate ventilation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up / Methods for containment : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.
- Additional advice : For personal protection see section 8.

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## 7. HANDLING AND STORAGE

### Handling

- Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.  
Avoid contact with skin, eyes and clothing.

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.

### Storage

- Requirements for storage areas and containers : Prevent unauthorized access.  
Keep container tightly closed in a dry and well-ventilated

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place.  
Store in closed dark containers made of anti-corrosive material.

Other data : No decomposition if stored and applied as directed.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Sodium hydroxide	1310-73-2	CEIL	2 mg/m3	1994-09-01	ACGIH	
		C	2 mg/m3	2013-03-01	ACGIH	
	Further information	:	Upper Respiratory Tract irritation Eye irritation Skin irritation			
		C	2 mg/m3	2013-10-08	NIOSH REL	
		TWA	2 mg/m3	1997-08-04	OSHA Z-1	
		C	2 mg/m3	1989-01-19	OSHA P0	

STEL: Short term exposure limit

TWA: Time Weighted Average

### Engineering measures

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

Eye/face protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Respiratory protection : In the case of vapor or aerosol formation use a respirator with an approved filter.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

### Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

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Form	: liquid
Color	: light yellow
Odor	: Slightly ammonia like
Odor Threshold	: not determined

## Safety data

pH	: 13
Melting point	: Not applicable
Boiling point/boiling range	: 105 - 110 °C
Flash point	: not (in)flammable Product is not flammable (aqueous)
Evaporation rate	: No data available
Flammability (solid, gas)	:
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Vapor pressure	: similar to water
Relative vapor density	: similar to water
Relative density	: 1.15 - 1.38
Bulk density	: Not applicable
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: < 0
Autoignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, dynamic	: ca. 19 mPa.s at 20 °C
Viscosity, kinematic	: 13.80 - 16.50 mm <sup>2</sup> /s at 20 °C
Explosive properties	: Not explosive
Oxidizing properties	: Not classified as oxidizing.
Corrosive to metals	: Corrosive to metals

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

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## 10. STABILITY AND REACTIVITY

Conditions to avoid	: None known.
Materials to avoid	: Aluminum Zinc Copper alloys Copper Nickel
Hazardous decomposition products	: Carbon oxides nitrogen oxides (NOx)
Thermal decomposition	: No data available
Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Hazardous reactions	: No dangerous reaction known under conditions of normal use.

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## 11. TOXICOLOGICAL INFORMATION

### PRODUCT INFORMATION:

#### Toxicology Assessment

Further information : May cause damage to organs through prolonged or repeated exposure.

#### Test result

Acute oral toxicity : Acute toxicity estimate: 4,506 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 3.8 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method

#### Carcinogenicity:

**IARC** : Group 2B: Possibly carcinogenic to humans  
Nitrilotriacetic acid, trisodium salt 5064-31-3

**OSHA** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP** : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**ACGIH** : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

#### TOXICOLOGY DATA FOR THE INGREDIENTS:



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## Toxicology Assessment

### **Component: Sodium hydroxide**

CMR effects : Mutagenicity: In vivo tests did not show mutagenic effects, Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### **Component: Nitrilotriacetic acid, trisodium salt**

CMR effects : Carcinogenicity: Limited evidence of a carcinogenic effect.

## Test result

### **Component: Ethylenediaminetetraacetic acid, tetrasodium salt**

Acute oral toxicity : LD50: 1,780 mg/kg  
Species: Rat  
Read-across (Analogy)

Acute inhalation toxicity : LC50 (Rat): > 1 - 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Eye irritation : Result: Eye irritation

Target Organ Systemic Toxicant - Repeated exposure : Routes of exposure: Inhalation  
May cause damage to organs through prolonged or repeated exposure.

### **Component: Sodium hydroxide**

Skin irritation : Result: Causes severe burns.

Eye irritation : Result: Risk of serious damage to eyes.

Sensitization : Result: Does not cause skin sensitization.

Germ cell mutagenicity  
Genotoxicity in vitro : In vitro tests did not show mutagenic effects

### **Component: Nitrilotriacetic acid, trisodium salt**

Acute oral toxicity : LD50: 1,740 mg/kg  
Species: Rat

Eye irritation : Result: Irritating to eyes.

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## 12. ECOLOGICAL INFORMATION

### PRODUCT INFORMATION:

#### Ecotoxicology Assessment

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Additional ecological information : None known.

## Further information on ecology

### Hazardous to the ozone layer

Regulation : 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

## INGREDIENTS:

### Ecotoxicology Assessment

#### Component: Sodium hydroxide

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### Test result

#### Component: Ethylenediaminetetraacetic acid, tetrasodium salt

### Ecotoxicity effects

Toxicity to fish : LC50: > 100 mg/l  
Exposure time: 96 h  
Species: Fish

Toxicity to daphnia and other aquatic invertebrates : EC50: > 500 mg/l  
Exposure time: 24 h  
Species: Daphnia magna (Water flea)

Toxicity to algae : EC50: > 100 mg/l  
Exposure time: 72 h  
Species: alga

### Elimination information (persistence and degradability)

Bioaccumulation : No data available

Mobility : No data available

Biodegradability : Result: Not readily biodegradable.

### Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

#### Component: Sodium hydroxide

### Ecotoxicity effects

Toxicity to daphnia and other : EC50: 40.4 mg/l

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aquatic invertebrates                      Exposure time: 48 h  
Species: Ceriodaphnia (water flea)  
Test Type: Immobilization

## Elimination information (persistence and degradability)

Bioaccumulation                              : Does not bioaccumulate.  
  
Mobility                                         : Can be leached out from soil.  
  
Distribution among environmental compartments                      : Transport to air is not expected.  
Biodegradability                              : Result: Not applicable

## Further information on ecology

Biochemical Oxygen Demand (BOD)                      : No data available

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## 13. DISPOSAL CONSIDERATIONS

Product                                         : Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Hazardous waste  
Dispose of contents/container in accordance with local regulation.  
  
Contaminated packaging                      : Empty remaining contents.  
Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### International Regulation

#### IATA-DGR

UN/ID No.                                         : UN 3267  
Proper shipping name                              : Corrosive liquid, basic, organic, n.o.s.  
(Ethylenediaminetetraacetic acid, tetrasodium salt)  
Class     : 8  
Packing group                                         : III  
Labels     : 8  
Packing instruction (cargo aircraft)                      : 856  
Packing instruction (passenger aircraft)                      : 852  
Packing instruction (LQ)                              : Y841  
Environmentally hazardous                      : no

#### IMDG-Code

UN number                                         : UN 3267  
Proper shipping name                              : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
(Ethylenediaminetetraacetic acid, tetrasodium salt)  
Class     : 8  
Packing group                                         : III  
Labels     : 8

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EmS Code : F-A, S-B  
Marine pollutant : no

## Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

## Domestic regulation

### 49 CFR

Not regulated as a dangerous good

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## 15. REGULATORY INFORMATION

### Notification status

CH INV : YES. On the inventory, or in compliance with the inventory  
TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.  
DSL : YES. All components of this product are on the Canadian DSL.  
AICS : YES. On the inventory, or in compliance with the inventory  
NZIoC : NO. On the inventory, or in compliance with the inventory  
ENCS : YES. On the inventory, or in compliance with the inventory  
ISHL : YES. On the inventory, or in compliance with the inventory  
KECI : YES. On the inventory, or in compliance with the inventory  
PICCS : YES. On the inventory, or in compliance with the inventory  
IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviations, see section 16.

**TSCA list** : Not relevant

**OSHA Hazards** : Toxic by inhalation., Harmful by ingestion., Corrosive to skin, Corrosive to eyes, Corrosive to respiratory system., Carcinogen

### EPCRA - Emergency Planning and Community Right-to-Know

#### CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)
Sodium hydroxide	1310-73-2	1000 lbs

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

## Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307 The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Sodium hydroxide	1310-73-2
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Sodium hydroxide	1310-73-2
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## US State Regulations

### Massachusetts Right To Know

Nitritotriacetic acid, trisodium salt	5064-31-3	0.1 - 1 %
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### Pennsylvania Right To Know

Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	30-50%
Sodium hydroxide	1310-73-2	0.1 - 1 %

### New Jersey Right To Know

Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	30-50%
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### California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

Nitritotriacetic acid, trisodium salt	5064-31-3
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## 16. OTHER INFORMATION

### Full text of H-Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H402	Harmful to aquatic life.

Revision Date 04/24/2015

The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the context of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

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The information provided in this Material 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.