



Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

Product identifier I & I Calcium, Lime and Rust Remover ST-1257
Other means of identification AM10
Recommended use Non-foaming acid cleaner to remove stubborn mineral deposits
Recommended restrictions Not to be mixed with anything but water.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company name Stearns Packaging Corporation
Address 4200 Sycamore Avenue (53714)
PO Box 3216
Madison, WI 53704-0216
Telephone Phone: 800-655-5008
Fax 1-608-246-5149
Email stearns@stearnspkg.com
Website www.stearnspkg.com
Emergency phone number ChemTel Inc. (800)255-3924, +1 (813)248-0585

2. Hazards Identification

Physical hazards: Corrosive to metals. Category 1
Health hazards Skin corrosion/irritation Category 1C
Serious eye damage/eye irritation Category 1

Label elements



Signal word Danger
Hazard statement Causes severe skin burns and serious eye damage. May be corrosive to metals.

Precautionary statement

Prevention Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Do not breathe mists. Keep only in original container.
Response 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.
IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. DO NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a poison center / doctor.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or a physician.
Absorb spillage to prevent material damage.

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 1)

Storage	Store locked up. Store in a corrosive resistant container with a resistant inner liner.
Disposal	Dispose of contents in accordance with local regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Phosphoric acid		7664-38-2	40-50%

4. First-Aid Measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.
Skin contact	Take off contaminated clothing immediately. Flush with cool water. Wash with soap and water. Get medical attention immediately. Wash clothing before reuse.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Get medical attention immediately.
Ingestion	Rinse mouth. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention immediately.
Most important symptoms/ effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-Fighting Measures

Suitable extinguishing media	Dry chemical, CO ₂ , water spray or regular foam.
Unsuitable extinguishing media	Not available.

(Contd. on page 3)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 2)

Specific hazards arising from the chemical	During fire, toxic gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spill-ages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Stop the flow of material, if this is without risk. Large Spills: 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.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spill- age to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children. Store between -30° and 45°C.

(Contd. on page 4)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 3)

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)		1 mg/m ³
	STEL	3 mg/m ³

US. OSHA Table Z-1 Limits for Air Contaminants

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	PEL	1 mg/m ³

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

Appropriate engineering controls General ventilation normally adequate. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Individual protection measures, such as personal protective equipment

Exposure guidelines

Eye/face protection Wear safety glasses with side shields or goggles.

Skin protection

Hand protection Rubber gloves. Confirm chemical compatibility with a reputable supplier first.

Other As required by employer code.

Respiratory protection A respirator is not needed under normal conditions of use.

Thermal hazards Not available.

General hygiene considerations 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.

9. Physical and Chemical Properties

Appearance	Clear
Physical state	Liquid.
Color	Orange.
Odor	Slight detergent chemical odor, no fragrance added.
Odor threshold	Not available.
pH	< 0.5 (Concentrate)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 212 °F (> 100 °C)

(Contd. on page 5)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 4)

Pour point	Not available.
Specific gravity	1.28
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	< 1 (BuAc=1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Complete
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 100 cP
Other information	
Bulk density	10.66 lb/gal

10. Stability and Reactivity

Reactivity	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers. Reducing agents.
Hazardous decomposition products	Alkalis, organic materials, metals, and moisture. Do not mix with bleach or chlorinated products as chlorine gas will result. Hazardous decomposition should not be produced under normal conditions of storage and use.

(Contd. on page 6)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 5)

11. Toxicological Information

Information on likely routes of exposure

Skin contact	Skin contact may cause pain or irritation, redness, or blistering.
Eye contact	Causes serious eye damage. Direct contact with eyes may cause pain, watering and redness.
Inhalation	Prolonged inhalation of mists may produce symptoms of coughing and respiratory tract irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness, pain, irritation, and blistering.

Information on toxicological effects

Acute toxicity Oral, LD50 (rat), mixture, 5,460 mg/kg

Components	Species	Test Results
Phosphoric acid, 75% (CAS 7664-38-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	3,160 mg/kg
<i>Inhalation</i>		
LC50		not available
<i>Oral</i>		
LD50	Rat	1,530 mg/kg
Skin corrosion/irritation	Causes severe skin burns.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye damage. Direct contact with eyes may cause pain, watering, and redness.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin sensitization.	

(Contd. on page 7)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 6)

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
	Not listed.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may result in coughing and respiratory tract irritation.
Further information	Not available.

12. Ecological Information

Ecotoxicity No known significant effects or critical hazards.

Components	Species	Test Results
Phosphoric acid (CAS 7664-38-2)		
Aquatic		
Fish	LC50 Mosquito fish	138 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

(Contd. on page 8)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

13. Disposal Considerations

(Contd. from page 7)

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14 Transport information

<ul style="list-style-type: none"> • 14.1 UN-Number • DOT-AIR, ADR, ADN, IMDG, IATA 	<p style="text-align: center;">NA1760</p>
<ul style="list-style-type: none"> • 14.2 UN proper shipping name • DOT-LAND (ST-1257) • DOT-AIR (ST-1257) 	<p style="text-align: center;">Cleaning Compounds, NOI, liquid.</p> <p style="text-align: center;">NA1760, Compounds, cleaning liquid, (containing phosphoric acid), 8, PG III, Ltd. Qty.</p>
<ul style="list-style-type: none"> • 14.3 Transport hazard class(es) <p>This product can ship as Limited Quantity if packaged in ≤5 quarts (5.0 Liters) containers (Non Hazardous)</p> <ul style="list-style-type: none"> • DOT-AIR, IMDG, IATA (ST-1257) 	<p style="text-align: center;">8 Corrosive 8</p>
<ul style="list-style-type: none"> • Class • Label 	<p style="text-align: center;">8</p>
<ul style="list-style-type: none"> • DOT-LAND (ST-1257) 	<p style="text-align: center;">N/A</p>
<ul style="list-style-type: none"> • Class • Label 	<p style="text-align: center;">LTD. QTY.</p>

(Contd. on page 9)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 8)

• 14.4 Packing group	
• DOT, ADR, IMDG, IATA	III
• 14.5 Environmental hazards:	
• Marine pollutant:	No
• 14.6 Special precautions for user	Warning: Corrosive Substances
• Danger Code:	80
• EMS Number	F-A,S-B
• Segregation groups	Alkalis
• 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
• Transport/Additional information:	Not applicable.

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 8(b) Inventory: All components are listed or exempted.

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Phosphoric acid, 5,000 lbs.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - No
- Pressure Hazard - No
- Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical Acute: yes

SARA 313 (TRI reporting) No

(Contd. on page 10)

Safety Data Sheet
 according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
 GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 9)

Other federal regulations

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

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Food and Drug Administration (FDA)

Not regulated.

US state regulations

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

None

US. Massachusetts RTK - Substance List

Phosphoric acid (CAS 7664-38-2)

US. New Jersey Worker and Community Right-to-Know Act

Phosphoric acid (CAS 7664-38-2)

US. Pennsylvania RTK - Hazardous Substances

Phosphoric acid (CAS 7664-38-2)

US. Rhode Island RTK

Phosphoric acid (CAS 7664-38-2)

Country(s) or region	Inventory name	On inventory (yes/no)*
United 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)

(Contd. on page 11)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: I & I Calcium, Lime and Rust Remover

(Contd. from page 10)

16. Other Information

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 11/08/2017

SDS File Name AM10 I & I Calcium, Lime and Rust Remover SDS

Further information Not available.

Stearns Packaging Corporation makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Stearns Packaging Corporation as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Stearns Packaging Corporation assume any liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Stearns Packaging Corporation does not recommend blending this product with any other chemicals. All information, recommendations and data contained herein concerning this product are based upon information available at the time of writing from recognized technical sources.