Calcium, Rust & Lime Remover

Safety Data Sheet

According to 29CFR 1910.1200 OSHA Hazard Communication Standard
Issue date: 4/11/2023 Revision date: 4/11/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	:	Mixture
Product name	:	Calcium, Rust & Lime Remover
Synonyms	:	Brass and Copper Tarnish Remover / Instant Calcium, Lime & Rust Remover / All Metal Pre-Clean / Instant Brass/Copper Cleaner

1.2. Recommended use and restrictions on use

Recommended use	:	Acidic cleaner, Metal articles, copper, bronze, brass, Calcium carbonate, Descaler and rust remover
Restrictions on use	:	None known

1.3. Supplier

Flitz International LTD
821 Mohr Ave. Waterford, WI. 53185
USA
T (262) 534-5898
info@flitz.com

1.4. Emergency telephone number

Emergency number	:	1 (800) 222-1222 (U.S.)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals Category 1	H290	May be corrosive to metals
Serious eye damage Category 1	H318	Causes serious eye damage

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US)	:	Danger
Hazard statements (GHS US)	:	H290 - May be corrosive to metals H318 - Causes serious eye damage
Precautionary statements (GHS US)	:	P234 - Keep only in original container. 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. P310 - Immediately call a POISON CENTER or doctor/physician. P390 - Absorb spillage to prevent material-damage. P406 - Store in corrosive resistant container with a resistant inner liner.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Urea hydrochloride	CAS-No.: 506-89-8	1 - 10
Proprietary Corrosion Inhibitor	CAS-No.: Proprietary	<2

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : First aider: Pay attention to self-protection!.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. If you feel unwell, seek medical advice.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes serious eye damage. May cause minor irritation to the respiratory tract and to other mucous membranes. May cause slight irritation to the skin. May cause irritation to the digestive tract.

Inhalation : May cause minor irritation to the respiratory tract and to other mucous membranes.

Skin : May cause slight irritation to the skin.

Eyes : Severe eye irritant. Causes serious eye damage. Can cause blindness.

Ingestion : May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic symptoms : No chronic health hazards are likely for this material.

4.3. Immediate medical attention and special treatment, if necessary

Immediate medical attention is required for eye contact.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Carbon dioxide. Foam.

Unsuitable extinguishing media : Not determined.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Not flammable. Corrosive to metals. Reacts slowly with (some) metals: release of highly flammable gases/vapors hydrogen.
Explosion hazard	:	Product is not explosive.
Reactivity in case of fire	:	Corrosive substances. If the product is involved in a fire, it can release toxic chlorine gases.
Hazardous decomposition products in case of fire	:	Corrosive vapors. Toxic vapors may be released. hydrogen chloride. chlorine oxides.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Ventilate area. Eliminate ignition sources. No open flames. No smoking. Wear suitable protective clothing. Do not breathe vapors. Do not touch or walk on the spilled product. Stop leak if safe to do so. Evacuate area.

6.1.1. For non-emergency personnel

Emergency procedures	:	Ventilate spillage area. Eliminate ignition sources. Do not breathe vapors, mist. Do not get in eyes, on skin, or on clothing. Evacuate area.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage. Absorb and/or contain spill with inert material, then place in suitable container.
Methods for cleaning up	:	Ventilate area. Remove all sources of ignition. Cautiously neutralize spilled liquid. Liquid spill: neutralize with powdered limestone or sodium bicarbonate. Take up liquid spill into absorbent material. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash contaminated area with large amounts of water. Use personal protective equipment as required.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Ensure adequate ventilation. Avoid any direct contact with the product. Do not breathe vapors, mist. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Keep only in original container. Empty containers retain product residue and can be hazardous. Handle in accordance with good industrial hygiene and safety procedures.
Hygiene measures	:	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible materials : Strong oxidizers. Strong bases. Metals. Aluminum. Nitrates. chlorates.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Metal Pre-Cleaner

No additional information available

Urea hydrochloride (506-89-8)

No additional information available

Proprietary Corrosion Inhibitor (Proprietary)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

Recommended. Chemically resistant protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In operations where exposure limits are exceeded or exposure levels are excessive, an approved respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Thermal hazard protection:

Not applicable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear. Yellow liquid.

Color : Yellow

Odor : Mixture contains one or more component(s) which have the following odour:

Odor threshold : No data available

pH	:	0.7
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	100 °C
Flash point	:	> 93.3 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	< 0.1 mm Hg
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Density	:	≥ 1.01 – ≤ 1.41 g/ml
Solubility	:	Easily soluble. Water: 100 %
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	Product is not explosive.
Oxidizing properties	:	Not oxidising.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals. Aluminum.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with (strong) oxidizers. Strong bases.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Aluminum. Metals. Nitrates. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Reacts slowly with (some) metals: release of highly flammable gases/vapors hydrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Skin corrosion/irritation	:	Not classified. (On basis of test data. (OECD 404 method)) pH: 0.7
Serious eye damage/irritation	:	Causes serious eye damage. pH: 0.7
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified (This product does not contain any component that is considered a carcinogen by IARC, ACGIH, OSHA or NTP.)
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified

Urea hydrochloride (506-89-8)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified
Viscosity, kinematic	:	No data available
Symptoms/effects	:	Causes serious eye damage. May cause minor irritation to the respiratory tract and to other mucous membranes. May cause slight irritation to the skin. May cause irritation to the digestive tract.
Inhalation	:	May cause minor irritation to the respiratory tract and to other mucous membranes.
Skin	:	May cause slight irritation to the skin.
Eyes	:	Severe eye irritant. Causes serious eye damage. Can cause blindness.
Ingestion	:	May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	:	No chronic health hazards are likely for this material.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Dispose of in accordance with applicable federal, state, and local regulations.
Additional information	:	Empty containers retain product residue and can be hazardous.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
Not applicable	3265	3265
14.2. Proper Shipping Name		
Not applicable	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Urea Monohydrochloride)	Corrosive liquid, acidic, organic, n.o.s. (Urea Monohydrochloride)
14.3. Transport hazard class(es)		
Not applicable	8	8
		
14.4. Packing group		
Not applicable	III	III
14.5. Environmental hazards		
Not applicable	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
Corrosive to metals, Aluminum and its alloys, Not corrosive to steel.		

14.6. Special precautions for user

DOT

No data available

IMDG

Special provision (IMDG)	:	223, 274
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP1, TP28
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW2
Segregation (IMDG)	:	SGG1, SG36, SG49
Properties and observations (IMDG)	:	Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y841
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	852
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	856
CAO max net quantity (IATA)	:	60L

Special provision (IATA) : A3, A803

ERG code (IATA) : 8L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Metal Pre-Cleaner	
SARA Section 311/312 Hazard Classes	Refer to Section 2 for OSHA Hazard Classification.

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Proprietary Corrosion Inhibitor	CAS-No. Proprietary	<2%

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

Metal Pre-Cleaner

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.3. US State regulations

WARNING: This product can expose you to 1,4-Dioxane, which is known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

According to 29CFR 1910.1200 OSHA Hazard Communication Standard

Revision date : 4/11/2023

Full text of H-phrases	
H290	May be corrosive to metals
H318	Causes serious eye damage

Indication of changes:
new version.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.