

SAFETY DATA SHEET

Periodic Products Citric Acid Metal Stain Remover



FILE NO.: CL0006 MSDS DATE: 9/4/2014. Revised 9/7/2022

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Periodic Products Citric Acid Metal Stain Remover
Periodic Products Copper Stain Remover
OTHER MEANS OF IDENTIFICATION: Not Available
RECOMMENDED USE: Stain Remover
RECOMMENDED RESTRICTIONS: None Known
MANUFACTURER: Periodic Products, Inc.
ADDRESS: 6000 Cattlebridge Dr., Suite 206
Sarasota, FL 34232
EMERGENCY PHONE: 800-587-1213
CHEMTREC PHONE: 800-424-9300
OTHER CALLS: 954-764-7654
FAX PHONE: 954-764-7653

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE : GHS-US classification – Eye Irritant 2A H319
PHYSICAL HAZARDS: Not classified
HEALTH HAZARDS: DANGER. CAUSES EYE BURNS. CAUSES SKIN BURNS.
ROUTES OF EXPOSURE: Eyes, skin contact, inhalation, ingestion.
EYES: May cause chemical burns. May cause blindness.
SKIN: May cause chemical burns.
INHALATION: Dust extremely irritating to respiratory tract.
INGESTION: Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
TARGET ORGANS: Eyes, Skin, Respiratory System, Blood, Liver, Central Nervous System
CHRONIC EFFECTS: Prolonged or repeated exposure can cause drying, defatting, and dermatitis.
SIGNS AND SYMPTOMS: The product may cause burns to eyes, skin, and mucous membranes.
ENVIRONMENTAL HAZARDS: See Section 12 of this SDS
OSHA DEFINED HAZARDS: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

LABEL ELEMENTS
HAZARD SYMBOL: Hazard Pictogram (GHS-US)



GHS07

SIGNAL WORD: Warning (GHS-US)
HAZARD STATEMENT: H319 – Causes serious eye irritation.
PRECAUTIONARY STATEMENT:
PREVENTION P280 – Wear eye 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.
P337+P313 – If eye irritation persists: Get medical attention / advice.
Observe standard industrial hygiene practices.
P264 – Wash exposed skin thoroughly after handling.
RESPONSE P273 – Prevent release into the environment.
STORAGE Store away from incompatible materials.
DISPOSAL Dispose of waste and residues in accordance with local authority requirements.

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HAZARD(S) NOT OTHERWISE CLASSIFIED: Not known.
(HNOC)

SUPPLEMENTAL INFORMATION: Not applicable

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

DESCRIPTION: Citric Acid
COMPOSITION COMMENTS: CAS # 77-92-9

SECTION 4: FIRST AID MEASURES

ALWAYS SEEK PROFESSIONAL MEDICAL ATTENTION AFTER FIRST AID MEASURES ARE PROVIDED.

EYE CONTACT: Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT: Brush away excess of dry material. Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Get medical attention if irritation develops or persists.

INGESTION: Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

INHALATION: If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

MOST IMPORTANT SYMPTOMS / EFFECTS, ACUTE AND DELAYED: Causes severe eye irritation and possible injury. Causes skin and respiratory tract irritation. Repeated exposure may cause erosion of teeth. Chronic exposure may cause effects similar to those of acute exposure.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Treat symptomatically

GENERAL INFORMATION: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this SDS to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Dry chemical, CO₂, water spray, or regular foam.

UNSUITABLE EXTINGUISHING MEDIA: Not Available.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Not Available.

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: In the event of fire, cool tanks with water spray.

SPECIFIC METHODS: Cool containers exposed to flames with water until well after the fire is out.

GENERAL FIRE HAZARDS: No unusual fire or explosion hazards noted. Not flammable by WHMIS / OSHA criteria.

HAZARDOUS COMBUSTION PRODUCTS: May include and are not limited to: Oxides of carbon.

EXPLOSION DATA

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SENSITIVITY TO MECHANICAL
IMPACT: Not available.

SENSITIVITY TO STATIC
DISCHARGE: Under certain conditions, airborne dust of citric acid can explode when ignited by an electrostatic spark, other high-voltage sparks or other ignition source.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS,
PROTECTIVE EQUIPMENT AND
EMERGENCY PROCEDURES: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. For personal protection, see Section 8 of the SDS.

METHODS AND MATERIALS FOR
CONTAINMENT AND CLEAN-UP: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Before attempting clean up, refer to hazard data given above. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water. For waste disposal, see Section 13 of the SDS.

ENVIRONMENTAL PRECAUTIONS: Avoid discharge into drains, runoffs, or onto the ground. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR
SAFE HANDLING: Use care in handling and storage. Use good industrial hygiene practices in handling this material. Do not get in eyes, on skin, or on clothing. Avoid breathing dust. Wash thoroughly after handling.

CONDITIONS FOR SAFE STORAGE
INCLUDING ANY INCOMPATIBILITIES: Store in original tightly closed container. Store away from incompatible materials (see section 10 of the SDS). Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: ACGIH-TLV: TWA = 10mg/m³
OSHA-PEL: TWA = 10mg/m³
BIOLOGICAL LIMIT VALUES: No biological exposure limits noted for ingredient(s).
APPROPRIATE ENGINEERING CONTROLS: General ventilation normally adequate.

INDIVIDUAL PROTECTION MEASURES,
SUCH AS PERSONAL PROTECTIVE
EQUIPMENT
EYE/FACE PROTECTION: Wear chemical goggles.
SKIN PROTECTION
HAND PROTECTION: Wear rubber gloves.
OTHER: Wear suitable protective clothing as required by employer code.
RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
THERMAL HAZARDS: Not applicable.

GENERAL HYGIENE CONSIDERATIONS: Always observe good personal hygiene measure, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using, do not eat or drink.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Crystals / Powder
ODOR:	None
ODOR THRESHOLD:	Not Available
PHYSICAL STATE:	Solid, white to yellow
FORM:	Solid
pH:	2.2 0.1N in water
INITIAL BOILING POINT AND RANGE:	Not Available
MELTING POINT / FREEZING POINT:	135-152 °C / 275-305.6 °F
POUR POINT:	Not Available
SPECIFIC GRAVITY:	1.65 g/ml @ 20° C (Water = 1)
VAPOR PRESSURE:	Not Available
VAPOR DENSITY (AIR = 1):	Not Available
EVAPORATION RATE:	Not Available
PARTITION COEFFICIENT (n-OCTANOL/WATER):	Not Available
FLASH POINT:	174 °C / 345 °F
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
RELATIVE DENSITY:	Not Available
SOLUBILITY (IES):	Soluble in Water
AUTO-IGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	>170 °C
VISCOSITY:	Not Available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Reacts vigorously with alkaline material.
POSSIBILITY OF HAZARDOUS REACTIONS:	No dangerous reactions known under conditions of normal use. Hazardous polymerization does not occur.
CHEMICAL STABILITY:	Material is stable under normal conditions.
CONDITIONS TO AVOID:	Contact with incompatible materials. Avoid dust generation. Do not mix with other chemicals.
INCOMPATIBLE MATERIALS:	Strong oxidizing agents, caustics, reducing agents metal nitrates
HAZARDOUS DECOMPOSITION PRODUCTS:	May include and are not limited to: Oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON LIKELY ROUTES OF EXPOSURE

INGESTION:	Harmful if swallowed. May cause chemical burns to mouth, throat, and stomach. Oral LD50 = 5040 mg/kg mouse, 3000 mg/kg rat.
INHALATION:	Dust extremely irritating to respiratory tract.
SKIN CONTACT:	May cause chemical burns.
EYE CONTACT:	May cause chemical burns. May cause blindness.

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS:

May cause chemical burns. May be irritating to the respiratory tract, May cause blindness. Harmful if swallowed.

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INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY:	Oral LD 50 = 5040 mg/kg mouse, 3000 mg/kg rat.
SKIN CORROSION / IRRITATION:	May cause chemical burns.
EXPOSURE MINUTES:	Not Available.
ERYTHEMA VALUE:	Not Available.
OEDEMA VALUE:	Not Available.
SERIOUS EYE DAMAGE / IRRITATION:	Direct contact with eyes may cause chemical burns and blindness.
CORNEAL OPACITY VALUE:	Not Available.
IRIS LESION VALUE:	Not Available.
CONJUNCTIVAL REDDENING VALUE:	Not Available.
CONJUNCTIVAL OEDEMA VALUE:	Not Available.
RECOVERY DAYS:	Not Available.
RESPIRATORY OR SKIN SENSITIZATION	
RESPIRATORY:	Dust extremely irritating to respiratory tract.
SKIN:	Not Available.
GERM CELL MUTAGENICITY:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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.
TERATOGENICITY:	Not Available.
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE):	Not Classified.
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE):	Not Classified.
ASPIRATION HAZARD:	Dust extremely irritating to respiratory tract.
CHRONIC EFFECTS:	Not Classified.
FURTHER INFORMATION:	OSHA Hazardous Chemical.
NAME OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS:	Not Available.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:		
Ecotoxicity – Freshwater Fish – Acute Toxicity Data		
Citric Acid	77-92-9	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]
Ecotoxicity – Water Flea – Acute Toxicity Data		
Citric Acid	77-92-9	72 Hr EC50 Daphnia magna: 120 mg/L

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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 component.

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL INSTRUCTIONS: Collect and reclaim or dispose in sealed containers at licensed waste disposal sites.
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.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)
Not regulated as dangerous goods
TRANSPORTATION OF DANGEROUS GOODS (TDG – CANADA)
Not regulated as dangerous goods.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS
TSCA (TOXIC SUBSTANCE CONTROL ACT): Listed
CERCLA HAZARDOUS SUBSTANCE LIST (40 CFR 302.4): Not Listed
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: Yes
SARA 313 (TRI REPORTING): Not Regulated
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 REVENTION (40 CFR 68.130): Not Regulated

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SAFE DRINKING WATER ACT (SDWA):	Not Regulated
DRUG ENFORCEMENT ADMINISTRATION (DEA). LIST 2, ESSENTIAL CHEMICALS (21 CFR 1310.02(b) AND 1310.04(f)(2) AND CHEMICAL CODE NUMBER:	Not Listed
DRUG ENFORCEMENT ADMINISTRATION (DEA). LIST 1 AND 2	
EXEMPT CHEMICAL MIXTURES (21 CFR 1310.12(c)):	Not Regulated
DEA EXEMPT CHEMICAL MIXTURES CODE NUMBER:	Not Regulated
FOOD AND DRUG ADMINISTRATION (FDA):	Not Regulated
US STATE REGULATIONS:	California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
US – CALIFORNIA PROPOSITION 65 CARCINOGENS AND REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE	Not Listed
US – MASSACHUSETTS RTK – SUBSTANCE LIST:	Not Regulated
US- PENNSYLVANIA RTK – HAZARDOUS SUBSTANCE:	Not Regulated
US – RHODE ISLAND RTK:	Not Regulated

CANADIAN FEDERAL REGULATIONS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

WHMIS STATUS: Class D Division 2 Subdivision B Toxic material causing other toxic effects

INVENTORY STATUS*

<u>COUNTRY(S) OR REGION</u>	<u>INVENTORY NAME</u>	<u>ON INVENTORY (YES/NO)</u>
UNITED STATES	TOXIC SUBSTANCES CONTROL ACT (TSCA) INVENTORY	YES
PUERTO RICO	TOXIC SUBSTANCES CONTROL ACT (TSCA) INVENTORY	YES
CANADA	DOMESTIC SUBSTANCES LIST (DSL)	YES

* A "YES" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

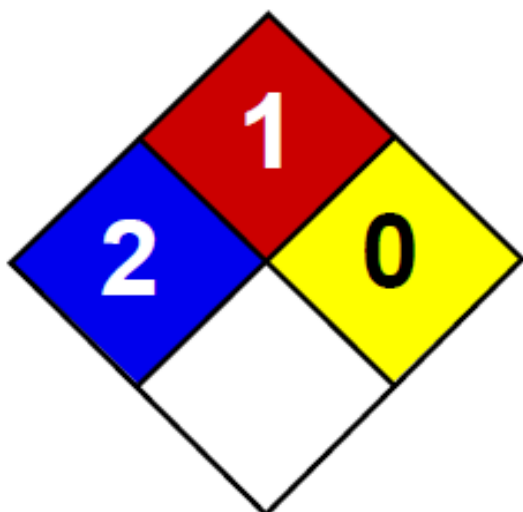
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SECTION 16: OTHER INFORMATION



Health	2
Fire	1
Reactivity	0
Personal Protection	E

Disclaimer: Periodic Products believes that the information herein is factual but is not intended to be all inclusive. The information relates only to the specific material designated and does not relate to its use in combination with other materials or its use as to any particular process. Because safety standards and regulations are subject to change and because Periodic Products has no control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored, or used and that the same is done in accordance with federal, state, and local law. Periodic Products makes no warranty, expressed or implied, including (without limitation) warranties with respect to the completeness or continuing accuracy of the information contained herein or with respect to fitness for any particular use.

CURRENT ISSUE DATE:
EFFECTIVE DATE:
EXPIRY DATE:
FURTHER INFORMATION:

SEPTEMBER 7, 2022
SEPTEMBER 7, 2022
JANUARY 1, 2025

OTHER INFORMATION:

For an updated SDS, please contact the supplier / manufacturer listed on the first page of this document.
This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
This SDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.

PREPARED BY:

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