Mettler Electronics Corp.

Cavi-Clean Additive Safety Data Sheet

Section 1: Identification

Product Name:	Cavi-Clean Additive
Revision Date:	09/03/2024
Version#:	A
CAS#:	77-92-9, citric acid/ 99.5-100.5%
Reorder#:	1816
Product Use:	Additive to Cavi-Clean Detergent for Ultrasonic Cleaning
Distributed by:	Mettler Electronics Corp.
Address:	1333 South Claudina Street
City, State, Zip:	Anaheim, CA 92805
Telephone:	1-800-854-9305, 1-714-533-2221
Emergency:	Chemtrec 1-800-424-0300
Date Prepared:	09/01/2024

Section 2: Hazard(s) Identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

Signal Word

Warning

Hazard Statements

May form combustible dust concentrations in air Causes serious eye irritation

May cause respiratory irritation

Precautionary Statements Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear eye/face protection

Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

Storage

Store in a well-ventilated place. Keep container tightly closed Store locked up

Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

Section 3: Composition/Information on Ingredients

Component	CAS No	Weight %
Citric acid	77-92-9	>95

Section 4: First-Aid Measures

General Advice If symptoms persist, call a physician.
Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects
None reasonably foreseeable.
Notes to Physician Treat symptomatically

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
Unsuitable Extinguishing Media No information available
Flash Point 100 °C / 212 °F
Method - No information available
Autoignition Temperature 1000 °C / 1832 °F
Explosion Limits
Upper No data available
Lower No data available
Oxidizing Properties Not oxidizing
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available
Specific Hazards Arising from the Chemical
Dust can form an explosive mixture with air. Keep product and empty container away from heat and sources of ignition. Fine dust dispersed in air may ignite.
Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO2).
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

Section 6: Accidental Release Measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed-up containers for disposal.

Section 7: Handling and Storage

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials. Strong oxidizing agents. Strong bases.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

Physical State Solid

Appearance White

Odor Odorless

Odor Threshold No information available

pH 1.7 (10 %)

Melting Point/Range 153 °C / 307.4 °F

Boiling Point/Range No information available
Flash Point 100 °C / 212 °F
Evaporation Rate Not applicable
Flammability (solid, gas) No information available
Flammability or explosive limits
Upper No data available
Lower No data available
Vapor Pressure No information available
Vapor Density Not applicable
Specific Gravity No information available
Solubility Soluble in water
Partition coefficient; n-octanol/water No data available
Autoignition Temperature 1000 °C / 1832 °F
Decomposition Temperature No information available
Viscosity Not applicable
Molecular Formula $C_6 H_8 O_7$
Molecular Weight 192.13

Section 10: Stability and Reactivity

Reactive Hazard None known, based on information available
Stability Stable under normal conditions.
Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat. Temperatures above 170°C.
Incompatible Materials Strong oxidizing agents, Strong bases, Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2) Hazardous
Polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.

Section 11: Toxicological Information

Acute Toxicity
Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Citric acid	LD50 = 3 g/kg (Rat)	>2 g/kg (Rat)	Not listed

Toxicologically Synergistic Products
No information available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Irritation Severe eye irritant
Sensitization No information available
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Citric acid	77-92-9	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.
Developmental Effects No information available.
Teratogenicity No information available.
STOT - single exposure Respiratory system
STOT - repeated exposure None known
Aspiration hazard No information available
Symptoms / effects,both acute and delayed No information available
Endocrine Disruptor Information No information available
Other Adverse Effects The toxicological properties have not been fully investigated.

Section 12: Ecological Information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Citric acid	Not listed	Leuciscus idus: LC50 = 440-760 mg/L/96h	Photobacterium phosphoreum: EC50 = 14 mg/L/15 min	EC50 = 120 mg/L/72h

Persistence and Degradability Persistence is unlikely
Bioaccumulation/ Accumulation No information available.
Mobility. Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Citric acid	-1.72

Section 13: Disposal Considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14: Transport Information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

Section 15: Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA – EPA Regulatory Flags
Citric acid	77-92-9	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL)

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Citric acid	77-92-9	X	-	201-069-1	X	X	X	X	X	KE-20831

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Citric acid	77-92-9	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Citric acid	77-92-9	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Citric acid	77-92-9	Not applicable	Not applicable	Not applicable	Annex I - Y34

Section 16: Other Information

Prepared By Regulatory Affairs Mettler Electronics Corp.

Email: info@mettlerelectronics.com
Creation Date 09/03/2024
Revision Date 09/03/2024
Print Date 09/03/2024
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this 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.