



VELTEK ASSOCIATES, INC.

Cage2Wash® 5

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 12/9/2011 Revision date: 8/24/2023 Supersedes: 1/26/2017 Version: 3.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Cage2Wash® 5
Product code : SDS VEL-009

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Citric acid detergent/descaler

1.3. Supplier

Veltek Associates, Inc.
15 Lee Blvd
Malvern, PA 19355-1234 USA
Telephone: +1 610-644-8335 - Fax: +1 610-644-8336
E-mail: vai@sterile.com

In Canada distributed by:
Canada Clean Room (CCR)
20 Cope Dr.
Kanata, ON K2M 2V8, Canada
Telephone: 1-(888)-595-8070

Fisher Scientific
112 Colonnade Road
Ottawa, Ontario, Canada K2E 7L6
Telephone: 1-800-234-7437

VWR International
2360 Argentia Road
Mississauga, Ontario L5N 5Z7
Telephone: 1-800-932-5000

1.4. Emergency telephone number

Emergency number : CARECHEM 24: 1-215-207-0061
1-866-928-0789 (toll free USA)
Canada: 1-800-579-7421 (toll free)
Mexico: +52-55-5004-8763

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 1

H318

Causes serious eye damage

Full text of H statements : see section 16

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2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H318 - Causes serious eye damage

Precautionary statements (GHS US)

: P280 - Wear eye protection, protective gloves, Long-sleeved protective clothing.

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 doctor.

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	%	GHS US classification
Citric acid	CAS-No.: 77-92-9	10 – 20	Eye Irrit. 2A, H319 STOT SE 3, H335
Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)	CAS-No.: 139-89-9	3 - 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

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

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If symptoms develop, obtain medical attention.

First-aid measures after eye contact

: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Obtain immediate medical attention.

First-aid measures after ingestion

: Rinse mouth. Do NOT induce vomiting. Do not give an unconscious person anything to drink. If symptoms develop, obtain medical attention.

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

Symptoms/effects after skin contact

: Repeated and/or prolonged skin contact may cause irritation.

Symptoms/effects after eye contact

: Causes serious eye damage.

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4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.
Hazardous decomposition products in case of fire : None known.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus when in close proximity to fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not get in eyes. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Ventilate area. Do not get in eyes. Avoid contact with skin and clothing.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Wear suitable protective clothing and eye or face protection.
Emergency procedures : Ventilate area. Do not get in eyes. Avoid contact with skin and clothing.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Large spills: Dike far ahead of liquid spill for later disposal. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Wash spill area with soapy water.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Do not get in eyes. Avoid contact with skin and clothing.

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Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Incompatible materials.

Incompatible materials : Strong oxidizing agents. Strong alkalis.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)

No additional information available

Citric acid (77-92-9)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Emergency eye wash stations should be available in the immediate vicinity of any potential exposure if required by regulation.

Environmental exposure controls : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear chemically resistant protective gloves. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Long sleeved clothing

Respiratory protection:

Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment

Thermal hazard protection:

Not required for normal conditions of use.

Other information:

Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Colorless
Odor	: Acidic.
Odor threshold	: No data available
pH	: 1.9 – 3.9
Melting point	: No data available
Freezing point	: 26.6 °F (-3 °C)
Boiling point	: 212 °F (100 °C)
Flash point	: Not flammable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.04 – 1.24 (Water = 1)
Solubility	: Miscible with 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	: Not explosive.
Oxidizing properties	: Not oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Product is stable.

10.4. Conditions to avoid

Freezing.

10.5. Incompatible materials

Strong alkalis. Strong oxidizing agents.

10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases. Hydrocarbons.

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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

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LD50 oral, rat	> 4000 mg/kg
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Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)

LD50 oral, rat	> 1780 – < 2000 mg/kg (OECD 401 method)
LD50 oral	1612 mg/kg (calculated value)
LC50 inhalation, rat (mg/l)	> 3.95 mg/l (OECD 403 method)

Citric acid (77-92-9)

LD50 oral	5400 mg/kg body weight mouse (OECD 401 method)
LD50 dermal, rat	> 2000 mg/kg body weight (OECD 402 method)

Skin corrosion/irritation : Not classified
pH: 1.9 – 3.9
Serious eye damage/irritation : Causes serious eye damage.
pH: 1.9 – 3.9
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

Citric acid (77-92-9)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after skin contact	: Repeated and/or prolonged skin contact may cause irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)

LC50 fish	372 mg/l - 96 Hours (Pimephales promelas)
EC50 Daphnia	192 mg/l - 48 Hours (Daphnia magna)
NOEC (chronic)	≥ 25.7 mg/l - 35 days (Danio rerio) (OECD 210 method)
NOEC chronic fish	≈ 30.25 mg/l (calculated value)
NOEC chronic crustacea	≈ 25.6 mg/l (calculated value)

Citric acid (77-92-9)

LC50 fish	440 mg/l - 48 Hours (Leuciscus idus melanotus) (OECD 203 method)
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Citric acid (77-92-9)	
EC50 Daphnia	1532 mg/l - 24 Hours (Daphnia magna) (OECD 203 method)
NOEC chronic algae	425 mg/l 8d (Scenedesmus quadricauda)

12.2. Persistence and degradability

Cage2Wash® 5	
Persistence and degradability	No data available.
Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)	
Persistence and degradability	Not expected to be readily biodegradable.
Citric acid (77-92-9)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Cage2Wash® 5	
Bioaccumulative potential	No data available.
Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)	
BCF - Fish [1]	3.2 l/kg (calculated value)
Bioaccumulative potential	Not expected to bioaccumulate.
Citric acid (77-92-9)	
Log Pow	-1.7 Source: ICSC
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

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Ecology - soil	Soluble in water.
Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)	
Ecology - soil	Not expected to adsorb to soil.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container at hazardous or special waste collection point.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

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14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not regulated
Proper Shipping Name (TDG)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: Not regulated
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TDG

Transport hazard class(es) (TDG)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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14.4. Packing group

Packing group (DOT)	: Not regulated
Packing group (TDG)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated

14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Special precautions for user

DOT

Not regulated

TDG

Not regulated

IMDG

Not regulated

IATA

Not regulated

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

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):	

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Name	CAS-No.	Listing	Commercial status	Flags
Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate)	139-89-9	Present	Active	
Citric acid	77-92-9	Present	Active	

15.2. International regulations

CANADA

Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)

Listed on the Canadian DSL (Domestic Substances List)

Citric acid (77-92-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Trisodium 2-(carboxylatomethyl(2-hydroxyethyl)amino)ethyliminodi(acetate) (139-89-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Citric acid (77-92-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

: 8/24/2023

Data sources

: US OSHA HazCom (GHS) 25 May 2012.

Other information

: US OSHA HazCom (GHS) 25 May 2012. Classification procedure. Environmental hazards: On basis of test data & Calculation method. Health hazards: On basis of test data & Calculation method. Physical hazards: On basis of test data.

Full text of H-phrases

H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Abbreviations and acronyms

	ACGIH (American Conference of Government Industrial Hygienists)
	ATE (Acute Toxicity Estimate)

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Abbreviations and acronyms	
	CAS (Chemical Abstracts Service) number
	EC50 (Effective Concentration 50%)
	IARC (International Agency for Research on Cancer)
	IATA (International Air Transport Association)
	IMDG (International Maritime Dangerous Goods Code)
	IMO (International Maritime Organisation)
	LC50 (Lethal Concentration 50%)
	LD50 (Lethal Dose 50%)
	OECD (Organisation for Economic Co-operation and Development)
	OSHA (Occupational Safety and Health Administration) (US)
	PBT (Persistent, Bioaccumulative and Toxic)
	SADT (Self-Accelerating Decomposition Temperature)
	STEL (Short Term Exposure Limit)
	TSCA (Toxic Substances Control Act) (US)
	TWA (Time Weighted Average)
	UNxxxx (Number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods)
	vPvB (very Persistent and very Bioaccumulative)

NFPA health hazard

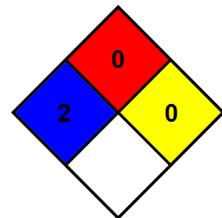
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Indication of changes:			
Section	Changed item	Change	Comments
1	Identification	Modified	No additional information available
3	Composition/Information on ingredients	Modified	No additional information available
4	First aid measures	Modified	No additional information available
5	Fire fighting measures	Modified	No additional information available
6	Accidental release measures	Modified	No additional information available
7	Handling and storage	Modified	No additional information available
8	Exposure controls / Personal protection equipment	Modified	No additional information available
10	Stability and reactivity	Modified	No additional information available
11	Toxicological information	Modified	No additional information available
12.	Ecological information	Modified	No additional information available
13	Disposal considerations	Modified	No additional information available

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15	Regulatory information	Modified	No additional information available
16	Other information	Modified	No additional information available