

SAFETY DATA SHEET

Issue Date 10-Aug-2018

Revision Date 05-Nov-2021 Version 2

Page 1 / 15

1. IDENTIFICATION

<u>Product identifier</u> Product Name	Buffer Powder Pillows Citrate Type for Heavy Metals
Other means of identification Product Code(s)	1420299
Safety data sheet number	M00153
UN/ID no	UN3077
Recommended use of the chemica	
Recommended Use	Buffer. Laboratory Use.
Uses advised against	None.
Restrictions on use	None.
Details of the supplier of the safet	y data sheet

Manufacturer Address Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

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

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Aquatic Acute Toxicity	Category 1
Chronic aquatic toxicity	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word Danger

Issue Date 10-Aug-2018 Version 2

 Product Name
 Buffer Powder Pillows Citrate Type for Heavy

 Metals
 Buffer Powder Pillows Citrate Type for Heavy

 Revision Date
 05-Nov-2021

 Page
 2 / 15



Hazard statements

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H350 - May cause cancer

H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements

P270 - Do not eat, drink or smoke when using this product

- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- P330 Rinse mouth

P501 - Dispose of contents/ container to an approved waste disposal plant

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
- P362 Take off contaminated clothing and wash before reuse

P280 - Wear protective gloves, protective clothing, eye protection, and 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

- P337 + P313 If eye irritation persists: Get medical attention
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P272 Contaminated work clothing should not be allowed out of the workplace
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention
- P363 Wash contaminated clothing before reuse
- P201 Obtain special instructions before use
- P308 + P313 IF exposed or concerned: Get medical advice/attention
- P405 Store locked up
- P271 Use only outdoors or in a well-ventilated area
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P273 Avoid release to the environment
- P391 Collect spillage

Other Hazards Known

May be harmful in contact with skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

<u>Mixture</u>

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Citric acid	77-92-9	70 - 80%	-
Hydrazine, sulfate (1:1)	10034-93-2	10 - 20%	-

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsRevision Date05-Nov-2021Page3 / 15

4. FIRST AID MEASURES

Description of first aid measures			
General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.		
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.		
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.		
Skin contact	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.		
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.		
Self-protection of the first aider	Avoid contact with skin, eyes or clothing.		
Most important symptoms and effects, both acute and delayed			
Symptoms	Itching. Rashes. Hives. Burning sensation.		
Indication of any immediate medica	al attention and special treatment needed		
Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.		
	5. FIRE-FIGHTING MEASURES		
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.		
Unsuitable Extinguishing Media	Caution: Use of water spray when fighting fire may be inefficient.		
Specific hazards arising from the chemical	Product is or contains a sensitizer. May cause sensitization by skin contact.		

Hazardous combustion products Nitrogen oxides. Carbon monoxide, Carbon dioxide. Sulfur oxides. Ammonia.

Special protective equipment for
fire-fightersFirefighters should wear self-contained breathing apparatus and full firefighting turnout
gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Product Code(s) 1420299	Product Name Buffer Powder Pillows Citrate Type for Heavy Metals			
Issue Date 10-Aug-2018 Version 2	Revision Date 05-Nov-2021 Page 4 / 15			
Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.			
Other Information	Refer to protective measures listed in Sections 7 and 8.			
Environmental precautions				
Environmental precautions	Prevent further leakage or spillage if safe to do so.			
Methods and material for containm	ent and cleaning up			
Methods for containment	Prevent further leakage or spillage if safe to do so.			
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.			
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.			
Reference to other sections	See section 8 for more information. See section 13 for more information.			
	7. HANDLING AND STORAGE			

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

 Storage Conditions
 Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

Flammability class Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	
Exposure Guidelines	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Appropriate engineering controls Engineering Controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hand Protection	Wear suitable gloves. Impervious gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN

Product Code(s) 1420299 Issue Date 10-Aug-2018 Version 2	Product Name Buffer Powder Pillows Citrate Type for Heavy Metals Revision Date 05-Nov-2021 Page 5 / 15		
	374-1:2016.		
Eye/face protection	Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.		
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Wash contaminated clothing before reuse.		
General Hygiene Considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.		
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.		
Thermal hazards	None under normal processing.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance	powder crystalline	Solid		Color	white	
Odor	Odorless			Odor threshold	No data ava	ilable
Property_			Values			Remarks • Method
Molecular weight	t		No data availal	ble		
рН			2.4			1% @ 20°C
Melting point/free	ezing point		153 °C / 30	7.4 °F		
Boiling point / bo	oiling range		300 °C / 57	2 °F		
Evaporation rate			Not applicable			
Vapor pressure			Not applicable			
Relative vapor de	ensity		No data availa	ble		
Specific gravity (water = 1 / air = 1)		1.74			
Partition Coeffici	ent (n-octanol/wat	er)	log K _{ow} ~ -1.3			
Soil Organic Carl	bon-Water Partition	า	log K _{oc} ~ -0.77			
Autoignition tem	perature		No data availal	ble		
Decomposition to	emperature		No data availal	ble		
Dynamic viscosi	ty		Not applicable			
Kinematic viscos	sity		Not applicable			
Solubility(ies)						
Water solubility						

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsBuffer Powder Pillows Citrate Type for HeavyRevision Date05-Nov-2021Page6 / 15

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other information

Metal Corrosivity

Steel Corrosion Rate	5.84 mm/yr / 0.23 in/yr
Aluminum Corrosion Rate	0.13 mm/yr / 0.01 in/yr

Volatile Organic Compounds (VOC) Content Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Citric acid	77-92-9	Not applicable	-
Hydrazine, sulfate (1:1)	10034-93-2	Not applicable	-

Explosive properties

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	Not applicable
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

10. STABILITY AND REACTIVITY

Reactivity Not applicable.

<u>Chemical stability</u> Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Possibility of hazardous reactions None under normal processing.

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsRevision Date05-Nov-2021Page7 / 15

Hazardous polymerization

None under normal processing.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

Hazardous decomposition products

Nitrogen oxides. Carbon dioxide. Carbon monoxide. Sulfur oxides. Ammonia.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	
---------------------	--

Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes. Causes serious eye irritation.
Skin contact	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Causes skin irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.
Symptoms	Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity Harmful if swallowed

Product Acute Toxicity Data No data available.

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Citric acid (70 - 80%) CAS#: 77-92-9	Rat LD50	3000 mg/kg	None reported	None reported	IUCLID (The International Uniform Chemical Information Database)
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2	Rat LD ₅₀	60 mg/kg	None reported	None reported	HSDB (Hazardous Substances Data Bank)

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%)	Rabbit LD50	300 mg/kg	None reported	None reported	Vendor SDS

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsRevision Date05-Nov-2021Page8 / 15

	CAS#: 10034-93-2					
--	------------------	--	--	--	--	--

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Hydrazine, sulfate (1:1)	Rat LC ₅₀	0.76 mg/L	4 hours	None reported	Vendor SDS
(10 - 20%) CAS#: 10034-93-2					

Unknown Acute Toxicity

0.01% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	398.30 mg/kg
ATEmix (dermal)	2,204.30 mg/kg
ATEmix (inhalation-dust/mist)	5.58 mg/l
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Citric acid (70 - 80%) CAS#: 77-92-9	Standard Draize Test	Rabbit	500 mg	24 hours	Mild skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Citric acid (70 - 80%)	Standard Draize Test	Rabbit	0.750 mg	24 hours	Eye irritant	RTECS (Registry of Toxic Effects of
CAS#: 77-92-9	1000					Chemical Substances)

Respiratory or skin sensitization

May cause sensitization by skin contact.

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsRevision Date05-Nov-2021Page9 / 15

Product Sensitization Data

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2	Based on human experience	Human	Confirmed to be a skin sensitizer	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)

STOT - single exposure

Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Single Exposure Data No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Repeat Dose Data No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Oral Exposure Route

Inhalation (Dust/Mist) Exposure Route

Carcinogenicity

Classification based on data available for ingredients. Contains a known or suspected carcinogen.

Product Carcinogenicity Data

No data available.

Ingredient Carcinogenicity Data

Test data reported below.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Citric acid	77-92-9	-	-	-	-
Hydrazine, sulfate (1:1)	10034-93-2	-	-	Reasonably	Х
				Anticipated	

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

Issue Date 10-Aug-2018 Version 2

Product Name Buffer Powder Pillows Citrate Type for Heavy Metals Revision Date 05-Nov-2021 Page 10/15

OSHA (Occupational Safety and Health Administration of the US Department of	X - Present
Labor)	

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-		29702 mg/kg	2 years	Liver Tumors	RTECS (Registry of Toxic Effects of Chemical Substances)

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Product Germ Cell Mutagenicity invitro Data No data available.

Ingredient Germ Cell Mutagenicity invitro Data No data available.

Product Germ Cell Mutagenicity invivo Data No data available.

Ingredient Germ Cell Mutagenicity invivo Data

No data available.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Product Reproductive Toxicity Data

No data available.

Ingredient Reproductive Toxicity Data

No data available.

Aspiration hazard

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
Unknown aquatic toxicity	0.01 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.
Product Ecological Data	
Aquatic Acute Toxicity No data available.	
Aquatic Chronic Toxicity No data available.	
Ingredient Ecological Data	
Aquatic Acute Toxicity	

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for Heavy
MetalsRevision Date05-Nov-2021Page11 / 15

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2	96 hours	Poecilia reticulata	LC ₅₀	0.28 mg/L	EPA (United States Environmental Protection Agency)

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2	48 Hours	Daphnia pulex	EC ₅₀	0.16 mg/L	EPA (United States Environmental Protection Agency)

Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2	72 Hours	Selenastrum capricornutum	EC50	0.006 mg/L	EPA (United States Environmental Protection Agency)

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Product Biodegradability Data No data available.

ino uala avaliable.

Bioaccumulation MATERIAL DOES NOT BIOACCUMULATE **Product Bioaccumulation Data** No data available.

Partition Coefficient (n-octanol/water)

Mobility

Soil Organic Carbon-Water Partition Coefficient

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

log Kow ~ -1.3

log Koc ~ -0.77

Waste treatment methods

Waste from residues/unused	Dispose of in accordance with local regulations. Dispose of waste in accordance with
products	environmental legislation.

EN / AGHS

Product Code(s) 1420299 Issue Date 10-Aug-2018 Version 2	Product Name Buffer Powder Pillows Citrate Type for Heavy Metals Revision Date 05-Nov-2021 Page 12 / 15
Contaminated packaging	Do not reuse empty containers.
Special instructions for disposal	Incinerate material at an E.P.A. approved hazardous waste facility. Work in an approved fume hood. Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

14. TRANSPORT INFORMATION

DOT UN/ID no Proper shipping name DOT Technical Name Transport hazard class(es) Packing Group Marine pollutant Emergency Response Guide Number	UN3077 Environmentally hazardous substances, solid, n.o.s. Hydrazine, sulfate (1:1) 9 III This product contains a chemical which is listed as a marine pollutant according to DOT. 171
<u>TDG</u> UN/ID no Proper shipping name TDG Technical Name Transport hazard class(es) Packing Group Description	UN3077 Environmentally hazardous substance, solid, n.o.s. Hydrazine, sulfate (1:1) 9 III UN3077, Environmentally hazardous substance, solid, n.o.s. (Hydrazine, sulfate (1:1)), 9, III
IATA UN number or ID number Proper shipping name IATA Technical Name Transport hazard class(es) Packing group ERG Code Special precautions for user	UN3077 Environmentally hazardous substance, solid, n.o.s. Hydrazine, sulfate (1:1) 9 III 9L A158, A179, A97
IMDG UN number or ID number Proper shipping name IMDG Technical Name Transport hazard class(es) Packing Group EmS-No Special precautions for user Marine pollutant	UN3077 Environmentally hazardous substance, solid, n.o.s. Hydrazine, sulfate (1:1) 9 III F-A, S-F 274, 335, 966, 967 This material meets the definition of a marine pollutant
Note:	No special precautions necessary.
Additional information	

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply. Issue Date 10-Aug-2018 Version 2 Product Name Buffer Powder Pillows Citrate Type for Heavy Metals Revision Date 05-Nov-2021 Page 13 / 15

15. REGULATORY INFORMATION

National Inventories	
TSCA	Complies
DSL/NDSL	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIOC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances **ENCS** - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Hydrazine, sulfate (1:1) (CAS #: 10034-93-2)	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsRevision Date05-Nov-2021Page14 / 15

Chemical name	California Proposition 65
Hydrazine, sulfate (1:1) (CAS #: 10034-93-2)	Carcinogen

WARNING: This product can expose you to chemicals including Hydrazine, sulfate (1:1), which is known to the State of California to cause cancer.

For more information, go to <u>http://www.P65Warnings.ca.gov</u>

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Hydrazine, sulfate (1:1)	Х	Х	Х
10034-93-2			

U.S. EPA Label Information

Chemical name	FIFRA	FDA
Citric acid	180.0950	21 CFR 184.1033

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments None

Additional information

Global Automotive Declarable Substance List (GADSL) Not applicable <u>NFPA and HMIS Classifications</u>

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 2 - *	Flammability - 0	Physical hazards - 0	Personal protection - X - I

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH	Immediately Dangerous to Life or Health		
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)		
NDF	no data		
Legend - Section & EXPOSURE CONTROL S/PERSONAL PROTECTION			

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
x	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these

Issue Date 10-Aug-2018 Version 2 Product NameBuffer Powder Pillows Citrate Type for HeavyMetalsBuffer Powder Pillows Citrate Type for HeavyRevision Date05-Nov-2021Page15 / 15

"liberated" exposure limits in their state regulations.

SKN* RSP+ C M	Skin designation Respiratory sensitization Carcinogen mutagen	SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant
Prepared By	Hach Produc	ct Compliance Department	
Issue Date	10-Aug-2018	3	
Revision Date	05-Nov-2021	I	
Revision Note	SDS sections 2	s updated	

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

HACH COMPANY©2021

End of Safety Data Sheet