

Issue Date 10-Aug-2018

SAFETY DATA SHEET

Version 2.2

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1. IDENTIFICATION Product identifier **Product Name** Buffer Powder Pillows Citrate Type for Heavy Metals Other means of identification Product Code(s) 1420299 M00153 Safety data sheet number **UN/ID** no UN3077 Recommended use of the chemical and restrictions on use **Recommended Use** Buffer. Laboratory Use. Uses advised against None. **Restrictions on use** None. Details of the supplier of the safety data sheet Manufacturer Address Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Revision Date 26-Jan-2024

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

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Hazard statements

- H302 Harmful if swallowed
- H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H335 May cause respiratory 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

Mixture

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% | - |

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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 effe | cts, both acute and delayed |
| Symptoms | Itching. Rashes. Hives. Burning sensation. |
| Indication of any immediate medica | 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. |
| Suitable Extinguishing Media Unsuitable Extinguishing Media | |
| | surrounding environment. |
| Unsuitable Extinguishing Media Specific hazards arising from the | surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. |
| Unsuitable Extinguishing Media Specific hazards arising from the chemical | surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. Product is or contains a sensitizer. May cause sensitization by skin contact. |
| Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for | surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. Product is or contains a sensitizer. May cause sensitization by skin contact. Nitrogen oxides. Carbon monoxide, Carbon dioxide. Sulfur oxides. Ammonia. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |
| Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for fire-fighters | surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. Product is or contains a sensitizer. May cause sensitization by skin contact. Nitrogen oxides. Carbon monoxide, Carbon dioxide. Sulfur oxides. Ammonia. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |
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| Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for fire-fighters U.S. Notice | surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. Product is or contains a sensitizer. May cause sensitization by skin contact. Nitrogen oxides. Carbon monoxide, Carbon dioxide. Sulfur oxides. Ammonia. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. 6. ACCIDENTAL RELEASE MEASURES 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 |

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| | 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, includ | ing 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 374-1:2016. |
| Eye/face protection | Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear |
| | Bogo 4/15 |

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|--|---|--|
| | 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 | Solid | | Color | white |
|---------------------------------|-------------------------|-------|-----------------------------|----------------|-------------------|
| Odor | crystalline Odorless | | | Odor threshold | No data available |
| Property_ | | | Values | | Remarks • Method |
| Molecular weigh | t | | No data availa | ble | |
| рН | | | 2.4 | | 1% @ 20°C |
| Melting point / fro | eezing point | | 153 °C / 30 | 17.4 °F | |
| Initial boiling poi | nt and boiling rang | е | 300 °C / 57 | 2°F | |
| Evaporation rate | | | Not applicable | | |
| Vapor pressure | | | Not applicable | | |
| Relative vapor de | ensity | | No data avail | able | |
| Specific gravity - | VALUE 1 | | 1.74 | | |
| Partition coeffici | ent | | log K _{ow} ~ -1.3 | | |
| Soil Organic Car Coefficient | bon-Water Partitior | n | log K _{oc} ~ -0.77 | | |
| Autoignition tem | perature | | No data availa | ble | |
| Decomposition t | emperature | | No data availa | ble | |
| Dynamic viscosi | ty | | Not applicable | | |
| Kinematic viscos | sity | | Not applicable | | |
| | | | | | |

Solubility(ies)

Water solubility

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

Solubility in other solvents

EN / AGHS

| 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 Aluminum Corrosion Rate 5.84 mm/yr / 0.23 in/yr 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.

Chemical stability

Stable under normal conditions.

Explosion data

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

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

EN / AGHS

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. |
| A | |

Acute toxicity

Harmful if swallowed

Mixture

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 |
| Hydrazine, sulfate (1:1) (10 - 20%) CAS#: 10034-93-2 | Rat LD ₅₀ | 60 mg/kg | None reported | None reported | HSDB |

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%) CAS#: 10034-93-2 | Rabbit LD₅₀ | 300 mg/kg | None reported | None reported | Vendor SDS |

Inhalation (Dust/Mist) Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---------------|------------------|---------------|------------------|-----------------------|---|
| | | | | | |

| Hydrazine, sulfate | Rat LC₅₀ | 0.76 mg/L | 4 hours | None reported | Vendor SDS |
|--------------------|---------------|-----------|---------|---------------|------------|
| (10 - 20%) | L C 50 | | | | |
| 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.

Mixture

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 |

Serious eye damage/irritation

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

Mixture

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%) CAS#: 77-92-9 | Standard Draize Test | Rabbit | 0.750 mg | 24 hours | Eye irritant | RTECS |

Respiratory or skin sensitization

May cause sensitization by skin contact.

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

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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 |

STOT - single exposure

May cause respiratory irritation.

Mixture

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.

Mixture

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.

Mixture

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 Anticipated | Х |

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 |
| OSHA | X - Present |

Oral Exposure Route

| Chemical name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--------------------|------------------|---------------|------------------|-----------------------|---|
| Hydrazine, sulfate | Hamster | 29702 mg/kg | 2 years | Liver | RTECS |

| (1:1) | | Tumors | |
|------------------|--|--------|--|
| (10 - 20%) | | | |
| CAS#: 10034-93-2 | | | |

Germ cell mutagenicity

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

Mixture invitro **Data** No data available.

Substance invitro Data No data available.

Mixture invivo Data No data available.

Substance invivo **Data** No data available.

Reproductive toxicity

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

Mixture 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 components(s) of unknown hazards to the aquatic environment. |

<u>Mixture</u>

Aquatic Acute Toxicity No data available.

Aquatic Chronic Toxicity No data available.

Substance

Aquatic Acute Toxicity

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%) | 96 hours | Poecilia reticulata | LC ₅₀ | 0.28 mg/L | EPA |

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

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 | EC50 | 0.16 mg/L | EPA |

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 |

Aquatic Chronic Toxicity

No data available.

Persistence and degradability

Mixture

No data available.

Bioaccumulation MATERIAL DOES NOT BIOACCUMULATE Mixture No data available.

Partition coefficient

Mobility

Soil Organic Carbon-Water Partition Coefficient

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

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

log Kow ~ -1.3

log Koc ~ -0.77

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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 |
|--|--|
| TDG UN/ID no Proper shipping name TDG Technical Name Transport hazard class(es) Packing Group | 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 Provisions | 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 Provisions 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 | |

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.

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

| Complies |
|----------|
| Complies |
| Complies |
| Complies |
| |

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| PICCS TCSI AICS NZIOC | Complies Complies Complies 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

| 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.

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| 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 NFPA and HMIS Classifications

| 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

| ACGIH | ACGIH (American Conference of Governmental Industrial Hygienists) |
|-------------|---|
| ATSDR | ATSDR (Agency for Toxic Substances and Disease Registry) |
| CCRIS | CCRIS (Chemical Carcinogenesis Research Information System) |
| CDC | CDC (Center for Disease Control) |
| CEPA | CEPA (Canadian Environmental Protection Agency) |
| CICAD | CICAD (Concise International Chemical Assessment Documents) |
| ECHA | ECHA (The European Chemicals Agency) |
| EEA | EEA (European Environment Agency) |
| EPA | EPA (Environmental Protection Agency) |
| ERMA | ERMÀ (New Zealands Environmental Risk Management Authority) |
| ECOSARS | Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™ |
| FDA | FDA (Food & Drug Administration) |
| GESTIS | GESTIS (Information System on Hazardous Substances of the German Social Accident |
| | Insurance) |
| HSDB | HSDB (Hazardous Substances Data Bank) |
| INERIS | INERIS (The National Industrial Environment and Risks Institute) |
| IPCS INCHEM | IPCS INCHEM (International Programme on Chemical Safety) |
| IUCLID | IUCLID (The International Uniform Chemical Information Database) |
| NITE | Japan National Institute of Technology and Evaluation (NITE) |
| NIH | NIH (National Institutes of Health) |
| NIOSH | NIOSH (National Institute for Occupational Safety and Health) |
| LOLI | LOLI (List of Lists - An International Chemical Regulatory Database) |
| NDF | no data |
| NICNAS | Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) |
| NIOSH IDLH | Immediately Dangerous to Life or Health |
| OSHA | OSHA (Occupational Safety and Health Administration of the US Department of Labor) |
| PEEN | PEEN (Pan European Ecological Network) |
| RTECS | RTECS (Registry of Toxic Effects of Chemical Substances) |
| SIDS | SIDS (Screening Information Dataset) for High Volume Chemicals |

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| SYKE | The Finnish Environment Institute (SYKE) |
|------|--|
| USDA | USDA (United States Department of Agriculture) |
| USDC | USDC (United States Department of Commerce) |
| WHO | WHO (World Health Organization) |

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 |
| Х | 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 "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 Product Compliance Department | | |
| Issue Date | | 10-Aug-2018 | | |
| Revision Date | | 26-Jan-2024 | | |
| Revision Note | | SDS sections updated 2 | | |

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.

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End of Safety Data Sheet