



Be Right™

SAFETY DATA SHEET

Issue Date 21-Jul-2016

Revision Date 10-Aug-2016

Version 3

Page 1 / 17

1. IDENTIFICATION

Product identifier

Product Name Total Hardness Buffer Solution

Other means of identification

Product Code(s)
6999-01-7

Safety data sheet number M00305

Component of Kits or Sets

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Hardness determination.
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
(970) 669-3050

Emergency telephone number

(303) 623-5716 - 24 Hour Service (515)232-2533 - 8am - 4pm CST

Product Information

Chemical Name Not applicable
Formula Not applicable
CAS No Not applicable
Alternate CAS Number Not applicable
NIOSH (RTECS) Number None reported

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status

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

| | |
|-----------------------------------|---------------------------|
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 1 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Signal word - Warning

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 2 / 17



Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements

P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/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 advice/attention
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse

Other Information

Harmful to aquatic life with long lasting effects
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Chemical Family Mixture.

Percent ranges are used where confidential product information is applicable.

| Chemical Name | CAS No | Percent Range | HMRIC # |
|-----------------------------|----------|---------------|---------|
| 2-Amino-2-methyl-1-propanol | 124-68-5 | 30 - 50 | - |
| Acetic acid | 64-19-7 | 5 - 10 | - |

4. FIRST AID MEASURES

Description of 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. If symptoms persist, call a physician. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. |
| Inhalation | Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. |
| Ingestion | Immediate medical attention is not required. Rinse mouth. Drink plenty of water. 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 | Use personal protective equipment as required. |

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water. Dry chemical. Carbon dioxide. Alcohol foam.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Flammable properties

Can burn in fire, releasing toxic vapors.

Specific hazards arising from the chemical

May react violently with: strong oxidizers.

Hazardous combustion products nitrogen oxides. carbon monoxide, carbon dioxide.

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.

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.

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 4 / 17

EC Notice Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

WHMIS Notice Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Emergency Response Guide Number Not applicable

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Use with local exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

Flammability class Class IIIB

Incompatible materials Oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-----------------------|-----------------------------|--|--|
| Acetic acid 5 - 10 | STEL: 15 ppm TWA: 10 ppm | TWA: 10 ppm TWA: 25 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 25 mg/m ³ | IDLH: 50 ppm TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm |

| | | | |
|--|--|--|----------------------------|
| | | | STEL: 37 mg/m ³ |
|--|--|--|----------------------------|

| Chemical Name | Alberta OEL | British Columbia OEL | Manitoba OEL | New Brunswick OEL | New Foundland & Labrador OEL |
|-----------------------|--|-----------------------------|-----------------------------|--|------------------------------|
| Acetic acid 5 - 10 | TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³ | TWA: 10 ppm STEL: 15 ppm | TWA: 10 ppm STEL: 15 ppm | TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³ | TWA: 10 ppm STEL: 15 ppm |

| Chemical Name | Northwest Territories OEL | Nova Scotia OEL | Nunavut OEL | Ontario TWA | Prince Edward Island OEL |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Acetic acid 5 - 10 | TWA: 10 ppm STEL: 15 ppm | STEL: 15 ppm TWA: 10 ppm | TWA: 10 ppm STEL: 15 ppm | TWA: 10 ppm STEL: 15 ppm | STEL: 15 ppm TWA: 10 ppm |

| Chemical Name | Quebec OEL | Saskatchewan OEL | Yukon OEL |
|-----------------------|--|-----------------------------|--|
| Acetic acid 5 - 10 | TWA: 10 ppm TWA: 25 mg/m ³ STEL: 15 ppm STEL: 37 mg/m ³ | TWA: 10 ppm STEL: 15 ppm | STEL: 25 ppm STEL: 43 mg/m ³ TWA: 10 ppm TWA: 25 mg/m ³ |

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Suitable protective clothing. Apron. Gloves made of plastic or rubber.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid

Gas Under Pressure Not classified according to GHS criteria

Appearance aqueous solution **Color** yellow

Odor Vinegar **Odor threshold** No data available

Property **Values** **Remarks • Method**

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 6 / 17

Molecular weight No data available
pH 10.0
Melting point/freezing point -16 °C / 3 °F
Boiling point / boiling range 104 °C / 219 °F
Evaporation rate 0.97 (water = 1)
Vapor pressure 23.027 mm Hg / 3.07 kPa at 25 °C / 77 °F
Vapor density (air = 1) 0.6
Specific gravity (water = 1 / air = 1) 1.033
Partition Coefficient (n-octanol/water) Not applicable
Soil Organic Carbon-Water Partition Coefficient Not applicable
Autoignition temperature No data available
Decomposition temperature No data available
Dynamic viscosity No data available
Kinematic viscosity No data available

Solubility(ies)

Water solubility

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

Solubility in other solvents

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

Other Information

Metal Corrosivity Not classified as corrosive to metal according to GHS criteria
Steel Corrosion Rate 0.05 mm/yr / 0 in/yr
Aluminum Corrosion Rate
Bulk density Not applicable
Explosive properties Not classified according to GHS criteria.
Explosion data No data available
Upper explosion limit No data available
Lower explosion limit No data available
Flammable properties Can burn in fire, releasing toxic vapors.
Flammability Limit in Air

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 7 / 17

| | |
|----------------------------------|--|
| Upper flammability limit: | No data available |
| Lower flammability limit: | No data available |
| Flash point | > 97 °C / 207 °F |
| Method | CC (closed cup) |
| Oxidizing properties | Not classified according to GHS criteria. |
| Reactivity properties | Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria. |

10. STABILITY AND REACTIVITY

Reactivity properties

Not classified as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria

Chemical stability

Stable under recommended storage conditions.

Special dangers of the product

None reported

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Extreme temperatures.

Incompatible materials

Oxidizers.

Hazardous Decomposition Products

nitrogen oxides. Carbon dioxide. Carbon monoxide.

Explosive properties

Not classified according to GHS criteria.

Upper explosion limit

No data available

Lower explosion limit

No data available

Autoignition temperature

No data available

Sensitivity to Static Discharge

None reported

Sensitivity to Mechanical Impact

None reported

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

| | |
|--|---|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information. |
| Inhalation | No known effect based on information supplied. |
| Eye contact | No known effect based on information supplied. |
| Skin contact | No known effect based on information supplied. |
| Ingestion | No known effect based on information supplied. |
| Aggravated Medical Conditions | None known. |
| Toxicologically synergistic products | None known. |
| Toxicokinetics, metabolism and distribution | No information available. |

Product Acute Toxicity Data

| | |
|--|-------------------|
| Oral Exposure Route | No data available |
| Dermal Exposure Route | No data available |
| Inhalation (Dust/Mist) Exposure Route | No data available |
| Inhalation (Vapor) Exposure Route | No data available |
| Inhalation (Gas) Exposure Route | No data available |

Unknown acute toxicity

1.38% of the mixture consists of ingredient(s) of unknown toxicity.

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

| | |
|------------------------|----------------|
| ATEmix (oral) | 5,258.00 mg/kg |
| ATEmix (dermal) | 5,307.00 mg/kg |

Ingredient Acute Toxicity Data

Oral Exposure Route

| Chemical Name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|----------------------|---------------|---------------|-----------------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Rat LD ₅₀ | ~ 2900 mg/kg | None reported | None reported | IUCLID (The International Uniform Chemical Information Database) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Rat LD ₅₀ | 3310 mg/kg | None reported | None reported | Vendor SDS |

Dermal Exposure Route

| Chemical Name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|---|-------------------------|---------------|---------------|-----------------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Rabbit LD ₅₀ | > 2000 mg/kg | None reported | None reported | IUCLID (The International Uniform Chemical Information Database) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Rabbit LD ₅₀ | 1060 mg/kg | None reported | None reported | RTECS (Registry of Toxic Effects of Chemical Substances) |

| | |
|--|-------------------|
| Inhalation (Dust/Mist) Exposure Route | No data available |
|--|-------------------|

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 9 / 17

Inhalation (Vapor) Exposure Route

No data available

| Chemical Name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
|--|---------------------------|---------------|---------------|-----------------------|--|
| Acetic acid (5 - 10) CAS#: 64-19-7 | Rat LC ₅₀ | 11.4 mg/L | 4 hours | None reported | Vendor SDS |
| Chemical Name | Endpoint type | Reported dose | Exposure time | Toxicological effects | Key literature references and sources for data |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Mouse LC ₅₀ | 5620 mg/L | 4 hours | None reported | RTECS (Registry of Toxic Effects of Chemical Substances) |

Inhalation (Gas) Exposure Route

No data available

Product Skin Corrosion/Irritation Data

No data available.

Ingredient Skin Corrosion/Irritation Data

| Chemical Name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------|---------|---------------|---------------|--------------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Standard Draize Test | Rabbit | None reported | None reported | Corrosive to skin | ECHA (The European Chemicals Agency) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Standard Draize Test | Human | 50 mg | 24 hours | Mild skin irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |
| Chemical Name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Open Irritation Test | Rabbit | 525 mg | None reported | Corrosive to skin | RTECS (Registry of Toxic Effects of Chemical Substances) |

Product Serious Eye Damage/Eye Irritation Data

No data available.

Ingredient Eye Damage/Eye Irritation Data

| Chemical Name | Test method | Species | Reported dose | Exposure time | Results | Key literature references and sources for data |
|--|----------------------|---------|---------------|---------------|-------------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Standard Draize Test | Rabbit | 0.1 mL | None reported | Corrosive to eyes | ECHA (The European Chemicals Agency) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Standard Draize Test | Rabbit | 5.0 mg | 0.5 minutes | Mild eye irritant | RTECS (Registry of Toxic Effects of Chemical Substances) |

Sensitization Information

Product Sensitization Data

Skin Sensitization Exposure Route

No data available.

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 10 / 17

Respiratory Sensitization Exposure Route

No data available.

Ingredient Sensitization Data

Skin Sensitization Exposure Route

Toxicological data for ingredients is not indicative of likely harm.

| Chemical Name | Test method | Species | Results | Key literature references and sources for data |
|--|--------------|------------|---------------------------------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Buehler Test | Guinea pig | Not confirmed to be a skin sensitizer | IUCLID (The International Uniform Chemical Information Database) |

Respiratory Sensitization Exposure Route

No data available.

Chronic Toxicity Information

Product Repeat Dose Toxicity Data

Oral Exposure Route

No data available.

Dermal Exposure Route

No data available.

Inhalation (Dust/Mist) Exposure Route

No data available.

Inhalation (Vapor) Exposure Route

No data available.

Inhalation (Gas) Exposure Route

No data available.

Ingredient Repeat Dose Toxicity Data

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Inhalation (Dust/Mist) Exposure Route

No data available

Inhalation (Vapor) Exposure Route

No data available

Inhalation (Gas) Exposure Route

No data available

| Chemical Name | CAS No | ACGIH | IARC | NTP | OSHA |
|-----------------------------|----------|-------|------|-----|------|
| 2-Amino-2-methyl-1-propanol | 124-68-5 | - | - | - | - |
| Acetic acid | 64-19-7 | - | - | - | - |

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) | Does not apply |
| OSHA (Occupational Safety and Health Administration of the US Department of Labor) | X - Present |

Product Carcinogenicity Data

No data available

Oral Exposure Route

No data available

Dermal Exposure Route

No data available

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 11 / 17

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Carcinogenicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Product Germ Cell Mutagenicity *invitro* Data

No data available.

Ingredient Germ Cell Mutagenicity *invitro* Data No data available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Germ Cell Mutagenicity *invivo* Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Oral Exposure Route No data available

Dermal Exposure Route No data available

Inhalation (Dust/Mist) Exposure Route No data available

Inhalation (Vapor) Exposure Route No data available

Inhalation (Gas) Exposure Route No data available

Ingredient Reproductive Toxicity Data

Oral Exposure Route No data available

Dermal Exposure Route No data available

Product Code(s) 6999-01-7
 Issue Date 21-Jul-2016
 Version 3

Product Name Total Hardness Buffer Solution
 Revision Date 10-Aug-2016
 Page 12 / 17

Inhalation (Dust/Mist) Exposure Route No data available
 Inhalation (Vapor) Exposure Route No data available
 Inhalation (Gas) Exposure Route No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity Based on the classification principles, not classified as hazardous to the environment.

Product Ecological Data

Aquatic toxicity

Fish No data available
Crustacea No data available
Algae No data available
Terrestrial toxicity
Soil No data available
Vertebrates No data available
Invertebrates No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

| Chemical Name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---------------|------------------------------|------------------|---------------|---|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | 96 hours | <i>Pleuronectes platessa</i> | LC ₅₀ | 184 mg/L | IUCLID (The International Uniform Chemical Information Database) |
| Chemical Name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
| Acetic acid (5 - 10) CAS#: 64-19-7 | 48 hours | <i>Oryzias latipes</i> | LC ₅₀ | 350 mg/L | GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance) |

Crustacea

| Chemical Name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|---|---------------|----------------------|------------------|---------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | 48 Hours | <i>Daphnia magna</i> | EC ₅₀ | 193 mg/L | IUCLID (The International Uniform Chemical Information Database) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | 48 Hours | None reported | LC ₅₀ | 90.1 mg/L | PEEN (Pan European Ecological Network) |
| Chemical Name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
| 2-Amino-2-methyl-1-propanol | 24 hours | <i>Daphnia magna</i> | EC ₅₀ | 65 mg/L | IUCLID (The International Uniform Chemical Information Database) |

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 13 / 17

| | | | | | |
|--|----------|-----------------------|------------------|---------|--|
| (30 - 50) CAS#: 124-68-5 | | | | | Database) |
| Acetic acid (5 - 10) CAS#: 64-19-7 | 24 hours | <i>Artemia salina</i> | LC ₅₀ | 42 mg/L | PEEN (Pan European Ecological Network) |

Algae

| Chemical Name | Exposure time | Species | Endpoint type | Reported dose | Key literature references and sources for data |
|--|---------------|--------------------------------|------------------|---------------|--|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | 72 Hours | <i>Scenedesmus subspicatus</i> | EC ₅₀ | 520 mg/L | IUCLID (The International Uniform Chemical Information Database) |

Terrestrial toxicity

Soil No data available
Vertebrates No data available
Invertebrates No data available

Other Information

Persistence and degradability

None known.

Product Biodegradability Data

No data available.

Ingredient Biodegradability Data

No data available

Bioaccumulation

None known.

Product Bioaccumulation Data

Test data reported below.

Ingredient Bioaccumulation Data

No data available

Additional information

Product Information

Partition Coefficient (n-octanol/water)

Not applicable

Ingredient Information

| Chemical Name | Partition Coefficient (n-octanol/water) | Method |
|--|---|--------------------------|
| Acetic acid (5 - 10) CAS#: 64-19-7 | log K _{ow} = -0.17 | No information available |

Mobility

Mobility in soil: High mobility. If available, see ingredient data below.

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 14 / 17

Product Information

Soil Organic Carbon-Water Partition Coefficient Not applicable

Ingredient Information

| Chemical Name | Soil Organic Carbon-Water Partition Coefficient | Method |
|--|---|--------------------------|
| Acetic acid (5 - 10) CAS#: 64-19-7 | log K _{oc} = 0.062 | No information available |

Additional information

Water solubility

Product Information

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

Ingredient Information

| Chemical Name | Water solubility classification | Water solubility | Water solubility temperature °C | Water solubility temperature °F |
|--|---------------------------------|------------------|---------------------------------|---------------------------------|
| 2-Amino-2-methyl-1-propanol (30 - 50) CAS#: 124-68-5 | Soluble | > 1000 mg/L | 25 °C | 77 °F |
| Acetic acid (5 - 10) CAS#: 64-19-7 | Soluble | > 1000 mg/L | 25 °C | 77 °F |

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Working in a well-ventilated area,. Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste in countries other than the US. Improper disposal or reuse of this container may be dangerous and illegal. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Special instructions for disposal

Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. If permitted by regulation,. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Check with national, local municipal and state authorities and waste contractors for pertinent local information on the disposal of this article.

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 15 / 17

14. TRANSPORT INFORMATION

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG Not regulated
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.

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 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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

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

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 16 / 17

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)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Acetic acid 64-19-7 | 5000 lb | - | - | X |

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

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|------------------------|--------------------------|----------------|--|
| Acetic acid 64-19-7 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| 2-Amino-2-methyl-1-propanol 124-68-5 | X | X | X |
| Acetic acid 64-19-7 | X | X | X |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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

NFPA and HMIS Classifications

| | | | | |
|-------------|---------------------------|-------------------------|-----------------------------|--|
| NFPA | Health hazards - 2 | Flammability - 1 | Instability - 0 | Physical and Chemical Properties - |
| HMIS | Health hazards - 2 | Flammability - 1 | Physical hazards - 0 | Personal protection - X - See section 8 for more information |

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

NIOSH IDLH
 ACGIH
 NDF

Immediately Dangerous to Life or Health
 ACGIH (American Conference of Governmental Industrial Hygienists)
no data

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Product Code(s) 6999-01-7
Issue Date 21-Jul-2016
Version 3

Product Name Total Hardness Buffer Solution
Revision Date 10-Aug-2016
Page 17 / 17

| | | | |
|------|---------------------------------|---------|---|
| 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 "liberated" exposure limits in their state regulations. |
| SKN* | Skin designation | SKN+ | Skin sensitization |
| RSP+ | Respiratory sensitization | ** | Hazard Designation |
| C | Carcinogen | R | Reproductive toxicant |
| M | mutagen | | |

Prepared By Hach Product Compliance Department

Issue Date 21-Jul-2016

Revision Date 10-Aug-2016

Revision Note None

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.

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End of Safety Data Sheet