

Citric Acid Solution 50%

Technical Data Sheet

Citric Acid Solution 50%

<u>Parameter</u>	<u>Basis</u>	<u>Typical Result</u>
Assay	Weight %	49.0 – 51.0
Arsenic (as As)	ppm	≤ 1.0
Heavy Metals (as Pb)	ppm	≤ 2.5
Lead	ppm	≤ 1.0
Identification		Meets FCC/USP Tests
Specific Gravity @ 60° F		1.24
Oxalate		Passes Test – No turbidity
Sulfate		Passes Test – No turbidity
Readily Carbonized Substances		Passes Test
Ultraviolet Absorbance		Meets the Requirements
Organic Volatile Impurities		Meets the Requirements

Kosher - Parve

This product meets the specification of the Food Chemicals Codex, 12th Edition. Meeting the specification of the Food Chemicals Codex does not guarantee that the product is suitable in a food-related application. Users of this product should carefully assess this product to determine if it is suitable for the intended application.

WARRANTY

This information is, to the best of our knowledge, accurate, but may not be complete. Northstar Chemical furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness or reliability.



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Wednesday, February 14, 2024** at 12:15 a.m. Eastern Time. Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

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<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=C0052176&Standard=060&>

NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals - Health Effects

Northstar Chemical

14200 Southwest Tualatin Sherwood Road

Sherwood, OR 97140

United States

888-793-9476

503-625-3770

Visit this company's website

(<http://www.northstarchemical.com>)

Facility : Distribution Center - San Pedro, CA

Sodium Hydroxide

Trade Designation

Sodium Hydroxide 15%

Sodium Hydroxide 20%

Sodium Hydroxide 25%

Sodium Hydroxide 30%

Sodium Hydroxide 33%

Sodium Hydroxide 50%

Product Function

pH Adjustment

pH Adjustment

pH Adjustment

pH Adjustment

pH Adjustment

pH Adjustment

Max Use

333mg/L

250mg/L

200mg/L

167mg/L

152mg/L

100mg/L

Facility : Modesto, CA

Blended Coagulation Chemicals[AL] [PY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
MP-1483	Coagulation & Flocculation	50mg/L
MP-1683	Coagulation & Flocculation	100mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Citric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid	pH Adjustment	100mg/L

Hydrochloric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 10%	pH Adjustment	140mg/L
Hydrochloric Acid 15%	pH Adjustment	93mg/L
Hydrochloric Acid 20%	pH Adjustment	70mg/L
Hydrochloric Acid 25%	pH Adjustment	56mg/L
Hydrochloric Acid 28%	pH Adjustment	50mg/L
Hydrochloric Acid 31%	pH Adjustment	45mg/L
Hydrochloric Acid 35%	pH Adjustment	40mg/L

Phosphoric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Phosphoric Acid 15%	Corrosion & Scale Control	68mg/L
Phosphoric Acid 36%	Corrosion & Scale Control	28mg/L
Phosphoric Acid 75%	Corrosion & Scale Control	14mg/L
Phosphoric Acid 85%	Corrosion & Scale Control	12mg/L

Polymer Blends[AL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
MD-1883	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

Potassium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
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Potassium hydroxide 10%	Corrosion & Scale Control pH Adjustment	450mg/L
Potassium hydroxide 45%	Corrosion & Scale Control pH Adjustment	100mg/L
Potassium hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 38%	Dechlorination	29mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide 15%	Corrosion & Scale Control	333mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control	167mg/L
Sodium Hydroxide 33%	Corrosion & Scale Control	152mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

Sodium Hypochlorite[HY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

Sodium Polyphosphates, Glassy

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hexametaphosphate Solution 16%	Corrosion & Scale Control	56mg/L

Sulfuric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 20%	Corrosion & Scale Control pH Adjustment	233mg/L
Sulfuric Acid 25%	Corrosion & Scale Control pH Adjustment	186mg/L
Sulfuric Acid 30%	Corrosion & Scale Control pH Adjustment	153mg/L
Sulfuric Acid 33%	Corrosion & Scale Control pH Adjustment	141mg/L
Sulfuric Acid 36%	Corrosion & Scale Control pH Adjustment	129mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L
Sulfuric Acid 70%	Corrosion & Scale Control pH Adjustment	66mg/L
Sulfuric Acid 78%	Corrosion & Scale Control pH Adjustment	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

Facility : Santa Fe Springs, CA**Blended Coagulation Chemicals[AL] [PY]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
MP-1483	Coagulation & Flocculation	50mg/L
MP-1683	Coagulation & Flocculation	100mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Citric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid	pH Adjustment	100mg/L

Hydrochloric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Hydrochloric Acid 10%	pH Adjustment	140mg/L
Hydrochloric Acid 15%	pH Adjustment	93mg/L

Hydrochloric Acid 20%	pH Adjustment	70mg/L
Hydrochloric Acid 25%	pH Adjustment	56mg/L
Hydrochloric Acid 28%	pH Adjustment	50mg/L
Hydrochloric Acid 31%	pH Adjustment	45mg/L
Hydrochloric Acid 35%	pH Adjustment	40mg/L

Miscellaneous Treatment Chemical

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Vitec 4000	Reverse Osmosis Antiscalant	7mg/L
Vitec 4000 11%	Reverse Osmosis Antiscalant	63mg/L

Phosphoric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Phosphoric Acid 15%	Corrosion & Scale Control	68mg/L
Phosphoric Acid 36%	Corrosion & Scale Control	28mg/L
Phosphoric Acid 75%	Corrosion & Scale Control	14mg/L
Phosphoric Acid 85%	Corrosion & Scale Control	12mg/L

Polymer Blends[AL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
MD-1883	Coagulation & Flocculation	250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

Potassium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Potassium hydroxide 10%	Corrosion & Scale Control pH Adjustment	450mg/L
Potassium hydroxide 45%	Corrosion & Scale Control pH Adjustment	100mg/L
Potassium hydroxide 50%	Corrosion & Scale Control pH Adjustment	100mg/L

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 38%	Dechlorination	29mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide 15%	Corrosion & Scale Control	333mg/L
Sodium Hydroxide 20%	Corrosion & Scale Control	250mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide 30%	Corrosion & Scale Control	167mg/L
Sodium Hydroxide 33%	Corrosion & Scale Control	152mg/L
Sodium Hydroxide 50%	Corrosion & Scale Control	100mg/L

Sodium Hypochlorite[HY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[HY] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

Sodium Polyphosphates, Glassy

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hexametaphosphate Solution 16%	Corrosion & Scale Control	56mg/L

Sulfuric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 20%	Corrosion & Scale Control pH Adjustment	233mg/L
Sulfuric Acid 25%	Corrosion & Scale Control pH Adjustment	186mg/L
Sulfuric Acid 30%	Corrosion & Scale Control pH Adjustment	153mg/L
Sulfuric Acid 33%	Corrosion & Scale Control pH Adjustment	141mg/L
Sulfuric Acid 36%	Corrosion & Scale Control pH Adjustment	129mg/L
Sulfuric Acid 50%	Corrosion & Scale Control pH Adjustment	93mg/L
Sulfuric Acid 70%	Corrosion & Scale Control pH Adjustment	66mg/L

Sulfuric Acid 78%	Corrosion & Scale Control pH Adjustment	60mg/L
Sulfuric Acid 93%	Corrosion & Scale Control pH Adjustment	50mg/L

Facility : Sherwood, OR**Aluminum Chlorohydrate[AL]**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Aluminum Chlorohydrate Solution M-1883	Coagulation & Flocculation Coagulation & Flocculation	250mg/L 250mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

Aluminum Sulfate[AL]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
A-0800 Aluminum Sulfate	Coagulation & Flocculation Coagulation & Flocculation	150mg/L 150mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

Blended Coagulation Chemicals[AL] [PY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
MP-1483	Coagulation & Flocculation	50mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Citric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Citric Acid	pH Adjustment	100mg/L

Polymer Blends[AL] [PY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
CP-0954	Coagulation & Flocculation	100mg/L

ND 0948	Coagulation & Flocculation	200mg/L
Polyaluminum Hydroxychlorosulfate	Coagulation & Flocculation	100mg/L

[AL] Based on an evaluation of health effects data, the level of aluminum in the finished drinking water shall not exceed 2 mg/L.

[PY] Polyamines Certified by NSF International comply with 40 CFR 141.111 requirements for percent monomer and dose.

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide Solutions 25%	Corrosion Control pH Adjustment	200mg/L
Sodium Hydroxide Solutions 50%	Corrosion Control pH Adjustment	100mg/L

Sodium Hypochlorite[HY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Starchlor	Disinfection & Oxidation	84mg/L

[HY] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

Sulfuric Acid

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sulfuric Acid 36%	pH Adjustment	129mg/L
Sulfuric Acid 50%	pH Adjustment	93mg/L
Sulfuric Acid 93%	pH Adjustment	50mg/L

Facility : Tacoma, WA

Sodium Hydroxide

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide Solution 25%	Corrosion Control pH Adjustment	200mg/L

Sodium Hydroxide Solution 50%	Corrosion Control pH Adjustment	100mg/L
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Sodium Hypochlorite[HY]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	40mg/L

[HY] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations. Also, reference the AWWA B300 (Hypochlorites) standard's Recommendations for the Handling and Storage of Hypochlorite Solutions appendix for information on preservation techniques for hypochlorite bleach in transit and storage.

Facility : Distribution Center - 3 USA**Sodium Hydroxide**

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Hydroxide Solution 25%	Corrosion Control pH Adjustment	200mg/L
Sodium Hydroxide Solution 50%	Corrosion Control pH Adjustment	100mg/L

Number of matching Manufacturers is 1

Number of matching Products is 103

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