

The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Friday**, **January 24**, **2025** at 12:15 a.m. Eastern Time. Please <u>contact NSF</u> to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: http://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=22370&

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

Hill Brothers Chemical Company

3000 East Birch Street Suite 108 Brea, CA 92821 United States 714-998-8800

Facility: Phoenix, AZ

Calcium Chloride

Trade DesignationProduct FunctionMax UseHICO Liquid Calcium ChlorideDefluoridation200mg/L

Softener

Liquid Calcium Chloride 30-38% Softener 200mg/L

Defluoridation

Chlorine[CL]

Trade DesignationProduct FunctionMax UseChlorine GasDisinfection & Oxidation30 mg/L

[CL] 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.

Ferric Chloride

| Trade Designation | Product Function | Max Use |
|-----------------------|----------------------------|---------|
| Ferric Chloride 42 BE | Coagulation & Flocculation | 250mg/L |

Ferrous Chloride

| Trade Designation | Product Function | Max Use |
|-------------------|----------------------------|---------|
| Ferrous Chloride | Coagulation & Flocculation | 250mg/L |

Sodium Hydroxide

| Trade Designation | Product Function | Max Use |
|--------------------------|------------------|----------|
| Liquid Caustic Soda, 25% | pH Adjustment | 200 mg/L |
| Liquid Caustic Soda, 30% | pH Adjustment | 167 mg/L |
| Liquid Caustic Soda, 33% | pH Adjustment | 152 mg/L |
| Liquid Caustic Soda, 50% | pH Adjustment | 100 mg/L |

Sodium Hypochlorite[HY]

| Trade Designation | Product Function | Max Use |
|-----------------------------|--------------------------|---------|
| 12.5% Liquid Bleach | Disinfection & Oxidation | 84mg/L |
| Sodium Hypochlorite - 12.5% | Disinfection & Oxidation | 84mg/L |
| Sodium hypochlorite 5.25% | Disinfection & Oxidation | 200mg/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

| Trade Designation | Product Function | Max Use |
|------------------------|---------------------------|---------|
| Sulfuric Acid 40% | Corrosion & Scale Control | 103mg/L |
| | pH Adjustment | |
| Sulfuric Acid 50% | Corrosion & Scale Control | 92mg/L |
| | pH Adjustment | |
| Sulfuric Acid 66 Baume | Corrosion & Scale Control | 50mg/L |
| | pH Adjustment | |
| Sulfuric Acid 93% | Corrosion & Scale Control | 50mg/L |
| | pH Adjustment | |

Facility: Industry, CA

| Ammonia, Anhydrous | | |
|-------------------------------|--------------------------|---------|
| Trade Designation | Product Function | Max Use |
| Ammonia Gas | Disinfection & Oxidation | 5mg/L |
| | Ozone Reduction | |
| Anhydrous Ammonia | Disinfection & Oxidation | 5mg/L |
| | Ozone Reduction | |
| Ammonium Hydroxide | | |
| Trade Designation | Product Function | Max Use |
| Ammonium Hydroxide 19% | Disinfection & Oxidation | 26mg/L |
| Ammonium Hydroxide 20% | Disinfection & Oxidation | 25mg/L |
| Ammonium Hydroxide 24.5% | Disinfection & Oxidation | 20mg/L |
| Ammonium Hydroxide 29.45% | Disinfection & Oxidation | 17mg/L |
| Aqua Ammonia 20% | Disinfection & Oxidation | 25mg/L |
| Aqua Ammonia 24.5% | Disinfection & Oxidation | 20mg/L |
| Aqua Ammonia 26 BE | Disinfection & Oxidation | 17mg/L |
| Ammonium Sulfate | | |
| Trade Designation | Product Function | Max Use |
| Ammonium Sulfate 40% Solution | Chloramination | 6omg/L |
| | Disinfection & Oxidation | |
| Liquid Ammonium Sulfate 40% | Chloramination | 6omg/L |
| | Disinfection & Oxidation | |
| Calcium Chloride | | |
| Trade Designation | Product Function | Max Use |
| HICO Liquid Calcium Chloride | Defluoridation | 200mg/I |

Facility: San Jose, CA

Liquid Calcium Chloride 30-38%

| Ammonia, Anhydrous | | |
|--------------------|--------------------------|---------|
| Trade Designation | Product Function | Max Use |
| Ammonia Gas | Disinfection & Oxidation | 5mg/L |
| | Ozone Reduction | |
| Anhydrous Ammonia | Disinfection & Oxidation | 5mg/L |
| | Ozone Reduction | |
| | | |

Defluoridation

Softener

Softener

Ammonium Hydroxide

Trade Designation **Product Function** Max Use

200mg/L

| Ammonium Hydroxide 19% | Disinfection & Oxidation | 26 mg/L |
|---------------------------|--------------------------|---------|
| Ammonium Hydroxide 20% | Disinfection & Oxidation | 25 mg/L |
| Ammonium Hydroxide 24.5% | Disinfection & Oxidation | 20 mg/L |
| Ammonium Hydroxide 29.45% | Disinfection & Oxidation | 17 mg/L |
| Aqua Ammonia 20% | Disinfection & Oxidation | 25 mg/L |
| Aqua Ammonia 24.5% | Disinfection & Oxidation | 20 mg/L |
| Aqua Ammonia 26 BE | Disinfection & Oxidation | 17 mg/L |
| | | |

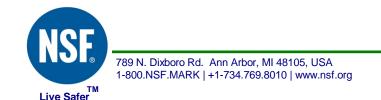
Ammonium Sulfate

| Trade Designation | Product Function | Max Use |
|-------------------------------|--------------------------|---------|
| Ammonium Sulfate 40% Solution | Chloramination | 6omg/L |
| | Disinfection & Oxidation | |
| Liquid Ammonium Sulfate 40% | Chloramination | 6omg/L |
| | Disinfection & Oxidation | |

Calcium Chloride

| Trade Designation | Product Function | Max Use |
|----------------------------------|------------------|---------|
| HICO Liquid Calcium Chloride 200 | Defluoridation | 200mg/L |
| | Softener | |
| Liquid Calcium Chloride 30-38% | Softener | 200mg/L |
| | Defluoridation | |

Number of matching Manufacturers is 1 Number of matching Products is 42 Processing time was 0 seconds



EVALUATION REPORT

Send To: 22370

Mr. Tony Garcia Hill Brothers Chemical Company 15017 East Clark Avenue City of Industry, CA 91745 Facility: 22374

Hill Brothers Chemical Company 15017 East Clark Avenue Industry CA 91745 United States

| Result | PASS | Report Date | 09-AUG-2024 |
|-------------------|--------------------------------|-------------|-------------|
| Customer Name | Hill Brothers Chemical Company | | |
| Tested To | NSF/ANSI/CAN 60 | | |
| Description | Ammonium Sulfate 40% Liquid | | |
| Trade Designation | Ammonium Sulfate 40% | | |
| Test Type | Annual Collection | | |
| Job Number | A-00474300 | | |
| Project Number | W0870355 | | |
| Project Manager | Jennifer Biers | | |

This report documents the testing of the referenced product to the requirements of NSF/ANSI/CAN Standard 60 (Drinking Water Treatment Chemicals - Health Effects). This standard establishes minimum requirements for chemicals, the chemical contaminants, and impurities that are added to drinking water from drinking water treatment chemicals. Contaminants produced as by-products through reaction of the treatment chemical with a constituent of the drinking water are not covered by this Standard. Reference the "About the Standard" section at the end of this report for additional information about NSF/ANSI/CAN Standard 60 and the products covered under this Standard.

Thank you for having your product tested by NSF.

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

Report Authorization

Date 09-AUG-2024

Scott E. Randall - Senior Manager Commercial Water

Seatte francia



General Information

Standard: NSF/ANSI/CAN 60

Chemical Name: Ammonium Sulfate 40%

Monitor Code: B

Physical Description of Sample: Liquid Tested DCC Number: DA08950

Trade Designation/Model Number: Ammonium Sulfate 40%

Sample Id: **S-0002128208**

Description: Ammonium Sulfate 40% | Liquid

Sampled Date: 30-Jul-2024 Received Date: 21-Jun-2024

Tox Normalization Information:

0.0980

Calculated NF
Preparation method used

A

JL 60 mg/L

Compound Reference Key: SPAC

Lab Normalization Information:

Date exposure completed
Final volume of solution
Mass of material used

30-JUL-2024 0.25 L

0.25 L 153 mg

Normalization Calculation:

Normalized Result = Test Result (ug/L) * NF

Where NF = MUL (mg/L) *

Final Volume Of Solution (L)

Mass of Material Used (mg)

- MUL = Maximum Use Level;
- Mass of Material Used = The mass of sample analyzed in the laboratory;
- Final Volume of Solution = The volume of water used to dilute the sample;
- An additional factor may be used to adjust the analytical result to field use conditions to account for product carryover, flushing, or other assumptions stipulated with the use of the product. If an additional factor is used, it is included in the information above.

| Testing Parameter | Units | Sample | Control | Result | Norm. Result | Acceptance Criteria(1) | Evaluation Status |
|--|--------------------|-------------------|------------------|-----------------|-----------------|---------------------------|----------------------|
| | ' | | | | | | |
| Ann Arbor Chemistry Lab | | | | | | | |
| Metals II in water by ICPMS (Ref: EPA 200.8) | | | | | | | |
| Arsenic | ug/L | ND(1) | ND(1) | ND(1) | ND(0.1) | 1 | Pass |
| Barium | ug/L | ND(1) | ND(1) | ND(1) | ND(0.1) | 200 | Pass |
| Beryllium | ug/L | ND(0.5) | ND(0.5) | ND(0.5) | ND(0.05) | 0.4 | Pass |
| Cadmium | ug/L | ND(0.2) | ND(0.2) | ND(0.2) | ND(0.02) | 0.5 | Pass |
| Chromium | ug/L | ND(1) | ND(1) | ND(1) | ND(0.1) | | |
| Copper | ug/L | ND(1) | ND(1) | ND(1) | ND(0.1) | 130 | Pass |
| Mercury | ug/L | ND(0.2) | ND(0.2) | ND(0.2) | ND(0.02) | 0.2 | Pass |
| Lead | ug/L | ND(0.5) | ND(0.5) | ND(0.5) | ND(0.05) | 0.5 | Pass |
| Antimony | ug/L | ND(0.5) | ND(0.5) | ND(0.5) | ND(0.05) | 0.6 | Pass |
| Selenium | ug/L | ND(1) | ND(1) | ND(1) | ND(0.1) | 5 | Pass |
| Thallium | ug/L | ND(0.2) | ND(0.2) | ND(0.2) | ND(0.02) | 0.2 | Pass |
| 1 - If the acceptance criteria is blank and the evaluation statu | us is "Fail", then | the criteria used | will be noted or | the letter acco | ompanying thes | e results. | |



Common Terms and Acronyms Used:

Sample..... Test result on the submitted product sample after prepared or exposed in accordance with the standard. Control..... Test result on a laboratory blank sample analyzed in parallel with the sample. Result..... Sample test result minus the Control test result. Normalized Result... Result normalized in accordance with the test standard to reflect potential at-the-tap concentrations Result is below the detection level of the analytical procedure as identified in the parenthesis. ND()..... DCC Number..... NSF document control code of the registered formulation of the product tested Microgram per liter = 0.001 milligram per liter (mg/L) ug/L..... SPAC..... Acceptance criteria of the standard (Single Product Allowable Concentration)

References to Testing Procedures:

| NSF Reference | Parameter / Test Description |
|---------------|--|
| | |
| C1183 | Metals II in water by ICPMS (Ref: EPA 200.8) |

Test descriptions preceded by an asterisk "*" indicate that testing has been performed per NSF requirements but is not within its scope of accreditation.

Unless otherwise indicated, method uncertainties are not applied in any determinations of conformity. Testing utilizes the requested sections of any referenced standards, which may not be the entire standard.

Dates of Laboratory Activity: 26-JUL-2024 to 06-AUG-2024

Testing Laboratories:

All work performed at:

NSF_AA

NSF
789 N. Dixboro Road
Ann Arbor MI 48105



About the Standard:

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

NSF/ANSI/CAN 60 establishes minimum health effects requirements for the chemicals, the chemical contaminants, and the impurities that are directly added to drinking water from drinking water treatment chemicals. It does not establish performance or taste and odor requirements. The standard contains requirements for chemicals that are directly added to water and are intended to be present in the finished water as well as other chemical products that are added to water but are not intended to be present in the finished water. Chemicals covered by this Standard include, but are not limited to, coagulation and flocculation chemicals, softening, precipitation, sequestering, pH adjustment, and corrosion/scale control chemicals, disinfection and oxidation chemicals, miscellaneous treatment chemicals, and miscellaneous water supply chemicals.

The testing performed to this standard is done to estimate the level of contaminants or impurities added to drinking water when the chemical is used at the "Maximum Use Level" under attestment. Prior to testing, information is obtained on the formulation and sources of supply used to manufacture the chemical. This information is then reviewed along with the minimum requirements of the standard to establish the potential contaminants of concern. A representative sample of chemical is obtained for testing. The chemical sample is prepared for analysis through specific methods established in the standard based on the type of chemical and then is analyzed for potential contaminants determined during the formulation review. The laboratory results are normalized to represent potential at-the-tap values and then compared to the "single product allowable concentration" (SPAC) established by the standard. The product is found in compliance with the standard if the normalized value is less than or equal to the allowable concentration.