SAFETY DATA SHEET

1. Product and Company Identification

Product Name: NUCLO 1800-1825, 3105 pH Decreaser

Alternate Product: Sodium Bisulphate, sodium hydrogen sulfate, sulfuric acid, GBS, sodium acid sulfate

General Use: Lower pH and/or alkalinity levels in swim pool water. Not approved for use in food or animal feed.

Manufacturer:

QUALCO, INC.
225 Passaic Street
Passaic, NJ 07055

Emergency Telephone Numbers:

800-424-9300 (CHEMTREC – US)
973-473-1222 (Qualco, Inc.)

2. Hazards Identification

OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Emergency Overview:

White granular solid with a slight sulfurous odor

Signal Word: Caution

Major Health Hazards:

Causes serious eye damage. Causes severe skin burns and eye damage. May cause respiratory tract irritation.

Precautionary Statements: Do not get in eyes. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Additional Hazard Information: May be corrosive to all contacted tissue when mixed with water. May cause irritation and burns with skin contact, eye contact, respiratory tract contact, or ingestion. Handle in accordance with good industrial hygiene and safety practice.

GHS Classification:

GHS Contact Hazard – Skin: Category 1 – Causes severe skin burns and eye damage.

GHS Contact Hazard – Eye: Category 1 – Causes serious eye damage.

GHS Acute Toxicity – Oral: Not classified as acutely toxic by oral exposure per OSHA-GHS criteria.

GHS Target Organ Toxicity – Single Exposure: Category 3 – May cause respiratory tract irritation

GHS Carcinogenicity: Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA.

Unknown Acute Inhalation Toxicity: There is no acute inhalation toxicity data available for this material 100% of this product consists of ingredient(s) of unknown acute inhalation toxicity.

Unknown Acute Dermal Toxicity: There is no acute toxicity data available for this material. 100% of this product consists of ingredient(s) of unknown acute dermal toxicity.

GHS Symbol: Corrosion, eye irritant

GHS Signal Word: Caution

GHS Hazard Statements:

GHS Health Hazard: Causes serious eye damage. Causes severe skin burns and eye damage. May cause respiratory irritation.

GHS Precautionary Statement(s) – Prevention:

Wear eye protection, face protection, protective gloves, protective clothing. Wash thoroughly after handling. Avoid breathing dust. Use only outdoors or in a well ventilated area.

GHS Precautionary Statement(s) – Response:

If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing if eye irritation persists. Immediately call a poison center or doctor/physician.

If on Skin: Remove/take off all contaminated clothing and wash it before reuse. Rinse skin with plenty of water. If skin irritation occurs, get medical advice/attention.

If Swallowed: Call a Poison Center or doctor/physician if you feel unwell. Rinse mouth. DO NOT induce vomiting.

If Inhaled: Remove person to fresh air and keep comfortable for breathing. Call a Poison Center or doctor/physician if you feel unwell.

For specific treatment see first aid on product label and/or Section 4 of SDS

GHS – Precautionary Statement(s) – Storage:

Store in a well ventilated place. Keep container tightly closed. Store locked up.

GHS – Precautionary Statement(s) – Disposal:

Dispose of contents and container in accordance with applicable local, regional, national and/or international regulations.

Hazards Not Otherwise Classified (HNOC):

None known.

3. Composition/Information on Ingredients

Synonyms: Sulfuric acid, sodium hydrogen sulfate, sodium bisulfate, GBS, monosodium salt

Component	Percent	CAS Number
Sodium bisulfate	91.5 – 94.7	7681-38-1
Sodium sulfate	4.8 – 8.0	7757-82-6
Water	0.1 – 0.5	7732-18-5

4. First Aid Measures

Inhalation: If inhaled and adverse effects occur, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, get immediate medical attention.

Skin Contact: Brush off excess material. Immediately remove all contaminated clothing, jewelry, and shoes. Rinse skin with large amounts of water/shower. Immediately contact a poison center, physician, or get medical attention. The specific treatment is flushing affected area with plenty of water. Wash contaminated clothing before reuse.

Eye Contact: If in eyes, immediately rinse eyes cautiously with water for several minutes. Remove contact lense, if present and easy to do. Continue rinsing eye. Get immediate medical attention.
Ingestion: If swallowed, rinse mouth. DO NOT induce vomiting. Contact a Poison Center or a doctor/physician, or get medical attention if you feel unwell.
Most Important Symptoms/Effects (Acute and Delayed): When in solution, this material may be corrosive to any tissue it comes in contact with. Depending on the exposure, it can cause serious burns and extensive tissue destruction.
Acute Symptoms/Effects: Listed below.
Inhalation (breathing): Respiratory System Effects: may cause irritation and chemical burns to the upper respiratory tract with burning pain in the nose and throat, coughing, wheezing and shortness of breath. Significant exposures may cause delayed pulmonart edema. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.
Skin: Skin irritation. Exposure to skin may cause slight skin redness, irritation. Prolonged contact and occlusion may cause more severe symptoms.
Eye: Serious eye damage. May cause eye burns. May cause watering, redness, and irritation to the eye lids, conjunctiva, and cornea. Severe burns may cause corneal perforation.
Ingestion (Swallowing): Gastrointestinal System Effects: Ingesting this material may cause gastrointestinal (GI) tract irritation and burns. Symptoms may include nausea, vomiting, abdominal pain, gastritis.
Other Health Effects: Repeated exposure may cause erosion of teeth.
Delayed Symptoms Effects:
Respiratory Systems Effects: Repeated inhalation exposure may cause lung irritation, bronchitis, persistent coughing. Severe eye burns may cause decreased visual acuity, loss of vision or loss of the eye. Repeated exposure may cause erosion of teeth
Interaction with Other Chemicals Which Enhance Toxicity: None known
Medical Conditions Aggravated by Exposure: May aggravate pre-existing conditions such as eye disorders that decrease tear production or have reduced integrity of the eye; skin disorders that compromise the integrity of the skin; and respiratory conditions including asthma and other breathing disorders.
Protection of First Aiders: Avoid contact with skin and eyes. Do not ingest. Use personal protective equipment, refer to Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient to prevention of bloodborne pathogen transmission.
Notes to Physician: This solid forms a solution with an acidic pH (1-2), which is corrosive to all contacted tissue. There is not antidote. Treatment is based upon symptomatic, and supportive care. Consider mucosal destruction, perforation, scarring, and obstruction.

5. Fire Fighting Measures

Fire Hazard: Negligible fire hazard
Extinguishing Media: Use media appropriate for surrounding fire.
Fire/Explosion Hazards: Not applicable
Fire Fighting Procedures: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by products. Stay upwind and keep out of low areas. Wear NIOSH approved positive pressure self contained breathing apparatus operated in pressure demand mode.
Hazardous Combustion Products: Oxides of sulfur. Oxides of sodium

Sensitivity to Impact: None
Sensitivity to Static Discharge: None
Lower Flammability Level (air): Not applicable
Upper Flammability Level (air): Not applicable
Flash Point: Not applicable
Auto-ignition Temperature: Not applicable

6. Accidental Release Measures

Personal Precautions: Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. When handling this material, wear appropriate personal protective equipment recommended in Section 8 Exposure Controls / Personal Protection, of the SDS.
Methods and Materials for Containment and Cleaning Up: Stop leak if possible without personal risk. Carefully shovel, scoop, sweep, or vacuum material into a designated labeled waste container. To minimize dust, vacuum cleaning is preferred.
Environmental Precautions: Keep out of water supplies and sewers. Releases should be reported, if required to appropriate regulatory agencies.

7. Handling and Storage

Handling: Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. When using, do not eat, drink or smoke.
Storage: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Material is hygroscopic and will readily absorb moisture. DO NOT store dry product where exposed to moist conditions. Keep separated for incompatible substances (see below or Section 10 of the SDS).
Incompatibilities/Materials to Avoid: Alkalis, Oxidizing agents, Acids.

8. Exposure Controls / Personal Protection

Regulatory Exposure Limits: Listed below for the product components that have regulatory occupational exposure limits (OEL's) established.

Component	**OSHA Final PEL TWA**	**OSHA Final PEL STEL**	**OSHA Final PEL Ceiling**
Particles Not Otherwise Regulated (PNOR) 00-00-001	15 mg/m3 (Total) 5 mg/m3 (Respirable)	-----	-----

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration
PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL; Short Term Exposure Limit
Non-Regulatory Limit(s): Listed below for the product components that have advisory (non-regulatory) occupational exposure limits (OEL's) established

Component	**CAS No.**	ACGIH/TWA	ACGIH/STEL	ACGIH/Ceiling	OSHA/TWA	OSHA/STEL

Particulates Not Otherwise Specified (PNOS)	Not Assigned	10 mg/m3 (Inhalable) 3 mg/m3 (respirable)	-------	-------	------	------

Additional Advice: Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls: Provide local exhaust ventilation where dust may be generated. Ensure compliance with applicable exposure limits.

Personal Protective Equipment:

Eyes Protection: Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles and/or face shield when appropriate.

Skin and Body Protection: As a good hygiene practice, wear protective clothing to minimize skin contact such as standard industrial work clothes, coveralls, safety footwear. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek. When potential for contact with wet material exists, wear Tychem or similar chemical protective suit. Contaminated clothing should be removed and laundered before reuse.

Hands, Arms, and Body: As a good hygiene practice, wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne dust concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. The added protection of a full face-piece respirator is required when visible dusty conditions are encountered and eye irritation may occur. A respiratory protective program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practices. Good hygiene practices include but are not limited to: wearing suitable gloves and/or eye protection, washing hands and affected skin immediately after handling before breaks, and at the end of the workday, regularly cleaning work area and clothing, etc. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and Chemical Properties

Physical State: Solid

Appearance and Color: Crystalline, off-white spherical beads

Odor: Slight sulfurous odor

Odor Threshold: Not applicable

Molecular Weight: 120

Molecular Formula: $NaHSO_4$

Decomposition Temperature: Not applicable

Auto ignition Temperature: Not applicable

Boiling Point: Not applicable

Freezing Point: Not applicable

Melting Point: 177°C (350.6°F)

Vapor Pressure: Not applicable

Vapor Density (air=1): Not applicable
Relative Density/Specific Gravity: 1.28
Bulk Density: 1.28 g/cm^3
Water Solubility: Partially soluble in the following materials: cold water and hot water
Evaporation Rate: Not applicable
pH: <1 (5% w/w solution)
Volatility: Not applicable
Evaporation Rate: Not applicable
Partition Coefficient in Water: Not data available
Flash Point: Not applicable
Flammability: Not applicable
Lower Flammability Level (air): Not applicable
Upper Flammability Level (air): Not applicable
Auto ignition Temperature: Not applicable
Viscosity: Not applicable
Hygroscopic: Yes

10. Stability and Reactivity

Reactivity: Not reactive under normal temperatures and pressures.
Chemical Stability: Stable at normal temperatures and pressures.
Possibility of Hazardous Reactions: DO NOT mix dry product or concentrated solutions of this product with concentrated solutions of chlorine bleach, ammonia cleaners or similar products.
Conditions To Avoid: Avoid moisture. Material is hygroscopic and will readily absorb moisture (e.g. static discharge, shock or vibration)
Polymerization: Will Not Occur
Incompatible Materials: Alkalis, Oxidizing agents, acids

11. Toxicological Information

Product Toxicity Data: Sodium Bisulfate
LD50 Oral: 2800 mg/kg – (Rat)
LD50 Dermal: No data available
LC50 Inhalation: No data is available
Component Toxicity Data: May differ from product toxicity data
Sodium Bisulfate (CAS #7681-38-1): LD50 Oral: 2490 mg/kg (rat)
LD50 Dermal: ------
LC50 inhalation: -----
Sodium Sulfate (CAS #7757-62-6): LD50 Oral: 10000 mg/kg (Rat)
LD50 Dermal: ------
LC50 Inhalation: -------
Potential Health Effects:

Eye Effects: Causes serious eye damage. May cause eye watering, redness, irritation to eye lids, conjunctiva, and cornea. May cause eye burns. Severe eye burns may cause corneal perforation.

Skin Effects: Skin contact may cause slight irritation, redness. Prolonged contact and/or occlusion may cause more serious irritation and possibly burns.

Inhalation: Inhalation of this material may cause upper airway irritation, cough, redness of mouth and upper airways, wheezing and shortness of breath. Significant exposure may cause delayed pulmonary edema. Significant exposures may be fatal.

Ingestion: Swallowing small amounts (tablespoonful) are not likely to cause injury. Swallowing large amounts may irritate or burn the digestive tract, and cause symptoms such as nausea, vomiting, abdominal pain, gastritis.

Signs and Symptoms of Exposure:

Inhalation (breathing): Respiratory System Effects. May cause irritation and chemical burns to the upper respiratory tract with burning pain in the nose and throat, coughing wheezing and shortness of breath. Significant exposures may cause delayed pulmonary edema. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

Skin: Skin irritation: Exposure to skin may cause slight skin redness, irritation Prolonged contact and occlusion may cause more severe symptoms.

Eye: Serious eye damage. May cause eye burns. May cause watering, redness, and irritation to the eye lids, conjunctiva, and cornea. Severe burns may cause corneal perforation.

Ingestion (Swallowing): Gastrointestinal System Effects: Ingesting this material may cause gastrointestinal (GI) tract irritation and burns. Symptoms may include nausea, vomiting, abdominal pain, gastritis.

Other Health Effects: Repeated exposure may cause erosion of teeth.

Toxicity: When in a solution, this substance may be corrosive to the gastrointestinal mucosa, skin, eyes, and respiratory tract. The amount of damage is dependent on the concentration of the material exposed to, and the duration and frequency of the exposure. Solid material can be hazardous in the eye, respiratory system, and gastrointestinal (GI) tract, partly due to increased adherence to mucosa. Exposure to vapors or mist from concentrated solutions can also cause symptoms.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

GHS Health Hazards:

GHS: Acute Toxicity-Oral: Not classified as acutely toxic for dermal exposure

GHS: Acute Toxicity-Dermal: Category 1 . Causes severe skin burns and eye damage.

GHS: Acute Toxicity-Inhalation: No data available. Not classified.

GHS: **Contact Hazard-Eye:** Category 1 – Causes serious eye damage

GHS Contact Hazard-**Skin:** Category 1 – Causes severe skin burns

GHS-Carcinogenicity: Not classified as a carcinogen per GHS criteria. This product is not classified as a carcinogen by NTP, IARC, or OSHA.

Specific Target Organ Toxicity (Single Exposure): Category 3 – Respiratory Tract Irritation

12. Ecological Information

Ecotoxicity Data:

Fate and Transport:

Biodegradation: This material is inorganic and not subject to biodegradation

Persistence: This material is believed not to persist in the environment

Bioconcentration: This material is believed not to bioaccumulate

13. Disposal Considerations

Waste from Material:
Use or reuse if possible. May be subject to disposal regulations. Dispose of in accordance with all applicable regulations.
Container Management:
Dispose of container in accordance with applicable local, regional, national and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

14. Transportation Considerations

Land Transport
US DOT 49 CFR 172.101 Status: Not regulated.
Canadian Transportation of Dangerous Goods: Not regulated
Maritime Transport (IMO/IMDG): Not regulated

15. Regulatory Information

United States
OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
CERCLA Sections 102a/103 Hazardous Substances (40 CFR 302.4): Not regulated
SARA EHS Chemical (40 CFR 355.30): Not regulated
EPCRA Sections 311/312 Hazard Categories (40 CFR 370.10): Acute Health Hazard
EPCRA Section 313 (40 CFR 372.65): Not regulated
OSHA Process Safety (PSM)(29 CFR 1910.119): Not regulated
National Inventory Status:
US Inventory Status: Toxic Substance Control Act (TSCA): All components are listed or exempt
TSCA 12(b): This product is not subject to export notification
Canadian Chemical Inventory: All components of this product are listed on either the DSL or NDSL
State Regulations:
California Proposition 65: Not listed to cause cancer or as a toxin.
Massachusetts Right To Know: Not listed on hazardous substance list
New Jersey Right To Know: Not listed on hazardous substance list. Corrosive
Pennsylvania Right To Know: Listed on Hazardous Substance List. Present (solution).
Rhode Island Right To Know: Not listed on hazardous substance list.
Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains information required by the Controlled Products Regulations.
WHMIS – Classification of Substances: D2B Poisonous and Infectious Material: materials causing other toxic effects – Toxic material.

16. Other Information

Prepared by: Qualco, Inc.
Date: Dec 2020
Disclaimer: We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative. This information is intended solely for the use of individuals trained in the NFPA and/or HMIS systems.

HMIS

Health:	1
Flammability:	0
Reactivity:	0

HMIS: Hazardous Material Identification System
Degree of Hazard Code:
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

NFPA

Health:	1
Flammability:	0
Reactivity:	0
Special:	None

No Special Requirements
NFPA: National Fire Protection Association
Degree of Hazard Code:
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

Other Information:

The information presented herein, while not guaranteed was prepared by technical personnel and is true and accurate to the best of our knowledge. No warranty of merchantability or of fitness for a particular purpose or warranty or guarantee of any other kind, expressed or implied, is made regarding performance, safety, suitability, stability or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, storage, disposal and other factors that may involve other or additional legal, environmental, safety or performance considerations, and Qualco assumes no liability whatsoever for the use of or reliance upon this information. While technical personnel will respond to questions, safe handling and use of the product remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patents or to violate any Federal, State, local or foreign laws.
OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to make all information in this SDS available.