SAFETY DATA SHEET

E-Z CLOR® pH DOWN

SDS No.: R31511E **SDS Revision Date:** 06-May-2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured For and Registered By:	Alliance Trading, Inc. 109 Northpark Boulevard, 4Th Floor Covington, LA 70433
Supplier Identification:	Occidental Chemical Corporation 5005 LBJ Freeway P.O. Box 809050 Dallas, TX 75380-9050 1-800-752-5151
24 Hour Emergency Telephone Number:	1-800-733-3665 or 1-972-404-3228 (USA); CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1 703-527-3887; CHEMTREC Contract No: CCN16186
Emergency Medical:	1-800-255-3924
OxyChem® Customer Service:	1-800-752-5151 or 1-972-404-3700
Product Identifier:	**E-Z CLOR® pH DOWN**
Synonyms:	Sodium Bisulfate Anhydrous; Sulfuric acid, monosodium salt, hydrate; Sodium acid sulfate, monohydrate; Sodium pyrosulfate, monohydrate; Bisulfate of sodium, monosulfate; Sodium hydrogen sulfate, monohydrate, GBS, Nitre cake
Product Use:	pH adjustment of pools.
Uses Advised Against:	Not approved for use in food or animal feed.

2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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EMERGENCY OVERVIEW:

Color: Off-white
Physical State: Solid
Appearance: Crystalline, Spherical shaped beads
Odor: Slight sulfurous odor

Signal Word: **DANGER**

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.

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

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.

GHS SYMBOL: Corrosion

GHS SIGNAL WORD: **DANGER**

GHS HAZARD STATEMENTS:

GHS - Health Hazard Statement(s)
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
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower
Wash contaminated clothing before reuse
IF SWALLOWED: 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
Specific treatment (see Section 4 of the safety data sheet and/or the First Aid information on the product label)

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

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: SULFURIC ACID, MONOSODIUM SALT, HYDRATE; SODIUM ACID SULFATE, MONOHYDRATE; SODIUM PYROSULFATE, MONOHYDRATE; BISULFATE OF SODIUM, MONOHYDRATE; SODIUM HYDROGEN SULFATE, NONOHYDRATE, GBS, Nitre cake

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 MEDICAL ATTENTION IMMEDIATELY.

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 re-use.

EYE CONTACT: If in eyes, immediately rinse eyes cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. GET MEDICAL ATTENTION IMMEDIATELY.

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 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.

Delayed Symptoms/Effects:
- Respiratory System 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 preexisting 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 for 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 no 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 Fighting: 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 Mechanical Impact:	Not sensitive.
Sensitivity to Static Discharge:	Not sensitive.
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Flash point:	Not flammable
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

Precautions for Safe Handling:
Avoid breathing dust. Avoid contact with skin and eyes. Wash thoroughly after handling. When using, do not eat, drink or smoke.

Safe Storage Conditions:
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 from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Incompatibilities/ Materials to Avoid:
Alkalis, Oxidizing agents, Acids

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): 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 PELCeiling
Particles Not Otherwise Regulated (PNOR) 00-00-001	15 mg/m^3 (Total) 5 mg/m^3 (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 EXPOSURE LIMIT(S): Listed below for the product components that have advisory (non-regulatory) occupational exposure limits (OEL's) established.

Component	CAS Number	ACGIH TWA	ACGIH STEL	ACGIH Ceiling	OSHA TWA (Vacated)	OSHA STEL (Vacated)	OSHA Ceiling (Vacated)
Particulates Not Otherwise Specified (PNOS)	Not Assigned	10 mg/m^3 (Inhalable) 3 mg/m^3 (Respirable)	-----	-----	-----	-----	-----

- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL's (vacated by 58 FR 35338, June 30, 1993).

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

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

PERSONAL PROTECTIVE EQUIPMENT:

Eye 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.

Hand Protection: 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 protection 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:	Crystalline, Spherical shaped beads
Color:	Off-white
Odor:	Slight sulfurous odor
Molecular Weight:	120
Molecular Formula:	NaHSO4
Decomposition Temperature:	No data available
Boiling Point/Range:	Not applicable to solids
Freezing Point/Range:	Not applicable to solids.
Melting Point/Range:	177 °C (350.6 °F)
Vapor Pressure:	Not applicable
Vapor Density (air=1):	Not applicable
Relative Density/Specific Gravity (water=1):	1.28
Bulk Density:	1.28 g/cm3
Water Solubility:	Partially soluble in the following materials: cold water and hot water
pH:	<1 (5% w/w solution)
Volatility:	No data available
Evaporation Rate (ether=1):	Not applicable
Partition Coefficient (n-octanol/water):	Not applicable
Flash point:	Not flammable
Flammability (solid, gas):	Not flammable
Lower Flammability Level (air):	Not flammable
Upper Flammability Level (air):	Not flammable
Auto-ignition Temperature:	Not applicable
Viscosity:	Not applicable to solids
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:
(e.g., static discharge, shock, or vibration) -. Avoid moisture. Material is hygroscopic and will readily absorb moisture.

Incompatibilities/ Materials to Avoid:
Alkalis. Oxidizing agents. Acids.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

PRODUCT TOXICITY DATA: Sodium Bisulfate

LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
2800 mg/kg (Rat)	No data available	No data available

COMPONENT TOXICITY DATA:
Note: The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given.

Component	LD50 Oral:	LD50 Dermal:	LC50 Inhalation:
Sodium bisulfate 7681-38-1	2490 mg/kg (Rat)	-----	-----
Sodium sulfate 7757-82-6	10000 mg/kg (Rat)	-----	-----

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POTENTIAL HEALTH EFFECTS:

Eye contact: 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 contact: 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 exposures 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 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.

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GHS HEALTH HAZARDS:

GHS: ACUTE TOXICITY - ORAL: Not classified as acutely toxic by oral exposure per OSHA-GHS criteria.

GHS: CONTACT HAZARD - SKIN: Category 1 - Causes severe skin burns and eye damage

GHS: CONTACT HAZARD - EYE: Category 1 - Causes serious eye damage

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.

ADDITIONAL ECOLOGICAL INFORMATION: This product readily dissolves in water to form a weak acid solution. A 0.05% or greater (by weight(solution of this product will likely be acutely harmful to aquatic life.

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. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

Status: Not regulated.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

Status: Not regulated.

MARITIME TRANSPORT (IMO / IMDG) :

Status - IMO / IMDG: Not Regulated

15. REGULATORY INFORMATION

U.S. REGULATIONS

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

U.S. 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 the NDSL.

STATE REGULATIONS

Component	California Proposition 65 Cancer WARNING:	California Proposition 65 CRT List - Male reproductive toxin:	California Proposition 65 CRT List - Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	New Jersey Right to Know Hazardous Substance List	New Jersey Special Health Hazards Substance List
Sodium bisulfate 7681-38-1	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	corrosive

Sodium sulfate 7757-82-6	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed

Component	New Jersey - Environmental Hazardous Substance List	Pennsylvania Right to Know Hazardous Substance List	Pennsylvania Right to Know Special Hazardous Substances	Pennsylvania Right to Know Environmental Hazard List	Rhode Island Right to Know Hazardous Substance List
Sodium sulfate 7757-82-6	Not Listed	Listed	Not Listed	Present (solution)	Not Listed

CANADIAN REGULATIONS

• This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

WHMIS - Classifications of Substances:

• D2B - Poisonous and Infectious Material; Materials causing other toxic effects - Toxic material

16. OTHER INFORMATION

Prepared by: OxyChem Corporate HESS - Product Stewardship

Rev. Date: Not Revised

HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)

Health Rating: 1 **Flammability Rating:** 0 **Reactivity Rating:** 0

NFPA 704 - Hazard Identification Ratings (SCALE 0-4)

Health Rating: 1 **Flammability:** 0 **Reactivity Rating:** 0

Reason for Revision:

• New Product

• Changed the SDS format to meet the GHS requirements of the revised 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200}

IMPORTANT:
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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 Safety Data Sheet available to your employees

End of Safety Data Sheet