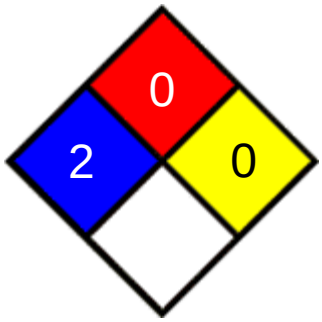
SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY INFORMATION			
PRODUCT TYPE:	Inorganic Salt Solution		
PRODUCT NAME:	**Bioxide®**		
COMPANY ID:	Evoqua Water Technologies LLC 181 Thorne Hill Drive, Warrendale, PA 15086		
TELEPHONE NUMBER:	**INFORMATION:**	**CORPORATE**	866.926.8420
	MEDICAL EMERGENCY:	**CHEMTREC**	800.424.9300
	TRANSPORTATION EMERGENCY:	**CHEMTREC**	800.424.9300
DATE PREPARED:	9 June 2015	**REVISION: 1**	

SECTION 2: HAZARD(S) IDENTIFICATION

HMIS RATINGS		NFPA RATINGS	GUIDE
HEALTH	2		4 – EXTREME/SEVERE 3 – HIGH/SERIOUS 2 – MODERATE 1 - SLIGHT 0 – MINIMUM ~~W~~ – WATER REACTIVE OX - OXIDIZER
FLAMMABILITY	0		
PHYSICAL HAZARD	0		
PERSONAL PROTECTION	D		

PICTOGRAM	SIGNAL WORD	HAZARD STATEMENT
	WARNING	H302: Harmful if swallowed. H315: Causes skin irritation. H320: Causes eye irritation. H335: May cause respiratory irritation.

PRECAUTIONARY STATEMENT(S)	
PREVENTION	P264: Wash…..thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P280: Wear protective gloves/protective clothing. P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

	P271: Use only outdoors or in a well-ventilated area.
RESPONSE	P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor/….if you feel unwell. P330: Rinse Mouth. P302+P352: IF ON SKIN: Wash with plenty of water. P332+P313: If skin irritation occurs: Get medical advice/attention. P362+P364: Take off contaminated clothing and wash it before reuse. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 - 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention. P304+P340: Remove person to fresh air and keep comfortable for breathing. P312: Call a POISON CENTER/doctor/….if you feel unwell.
STORAGE	P402: Store in a dry place. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P404: Store in a closed container. P405: Store locked up.

OTHER HAZARDS

NONE

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

PERCENT BY WEIGHT	COMMON NAME (Ingredient / Component)	CAS NO.	IMPURITIES
50-60	Ammonium Calcium Nitrate Double Salt	15245-12-2	none
Balance	Water	7732-18-5	none

SECTION 4: FIRST-AID MEASURES

NECESSARY FIRST AID INSTRUCTIONS

INHALATION FIRST AID	Remove affected person from area to fresh air. Give artificial respiration ONLY if breathing has stopped. Obtain medical attention if individual shows symptoms of exposure.
SKIN CONTACT FIRST AID	Immediately remove clothing from affected area and wash skin with flowing water and soap. Clothing must be washed before reuse. DO NOT instruct person to neutralize affected skin area. Obtain medical attention if irritation occurs.
EYE CONTACT FIRST AID	Immediately irrigate eyes with flowing water 15-20 minutes while holding eyes open. Contacts should be removed before or during flushing. DO NOT instruct person to neutralize. Obtain medical attention if irritation occurs.
INGESTION FIRST AID:	If victim is alert and not convulsing rinse mouth with water and give water to drink. Do not induce vomiting. If spontaneous vomiting occurs, have affected person lean forward with head down to maintain breathing passage. Obtain medical attention.

DESCRIPTION OF MOST IMPORTANT SYMPTOMS

No Additional Information Available

RECOMMENDATIONS FOR IMMEDIATE MEDICAL CARE

Treat Symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	**Use an extinguishing media suitable for the surrounding fire.**
UNSUITABLE EXTINGUISHING MEDIA	**None**
SPECIFIC HAZARDS	**May support combustion at high temperature.**
PERSONAL PROTECTIVE EQUIPMENT	**In the event of fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece, operated in positive pressure mode.**

SECTION 6: ACCIDENTAL RELEASE MEASURES	
PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	
PERSONAL PRECAUTIONS	Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin, and clothing.
ENVIRONMENTAL PRECAUTIONS	DO NOT DUMP ON THE GROUND OR INTO ANY BODY OF WATER.
CONTAINMENT AND CLEAN-UP	Mop up and containerize for subsequent recycling or disposal. Triple rinse empty containers with water prior to reconditioning.
OTHER INFORMATION	All disposal methods must be in compliance with all Federal, State, Local and Provincial laws, and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 7: HANDLING AND STORAGE	
PRECAUTIONS FOR SAFE HANDLING	Wash thoroughly after handling, immediately remove and dispose of any spillage. Immediately rinse contaminated clothing thoroughly with water. Rinse containers with water only.
CONDITIONS FOR SAFE STORAGE	Store in dry place at ambient temperatures apart from combustible and other readily oxidizable materials, food, beverage, and excessive heat. Rinse empty containers with water only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION			
ENGINEERING CONTROLS	Adequate general and mechanical exhaust ventilation.		
RESPIRATORY PROTECTION	None required under normal use conditions. If use conditions generate mists, wear a respirator with acid gas cartridges.		
SKIN PROTECTION	Wear protective gloves and other protective clothing as appropriate to prevent skin contact.		
EYE/FACE PROTECTION	Wear safety glasses with side shields. Wear chemical goggles if splashing is likely.		
EXPOSURE LIMITS/GUIDELINES	No occupational exposure limits have been established for this material.		
	RESULT	**OSHA 8 HR** mg/m^3	**ACGIH TLV 8 HR** mg/m^3
PARTICULATES NOT OTHERWISE REGULATED (PNOR)			
PARTICULATES NOT OTHERWISE CLASSIFIED (PNOC)			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES			
COLOR	Clear, colorless to slightly turbid tan	**MOLECULAR WEIGHT**	NA
ODOR	None	**ODOR THRESHOLD**	None
pH VALUE	5-8	**VAPOR PRESSURE**	NA
MELTING POINT	NA	**VAPOR DENSITY**	Liquid
FREEZING POINT	≤ -10 F (-23 C)	**RELATIVE DENSITY**	1.39 – 1.48 @ 20 C
INITIAL BOILING POINT	218 F – 221 F	**SOLUBILITY**	Complete

FLASHPOINT	NA	**PARTITION COEFFICIENT**	NA
EVAPORATION RATE	NA	**AUTO IGNITION TEMP.**	None
FLAMMABILITY	NA	**DECOMP. TEMP.**	NA
UEL	NA	**VISCOSITY**	NA
LEL	NA		

SECTION 10: STABILITY AND REACTIVITY	
REACTIVITY	NA
CHEMICAL STABILITY	Stable
POSSIBILITY OF HAZARDOUS REACTIONS	This product is incompatible with organic materials, reducing agents, chlorine or hypochlorite products, and caustic products.
CONDITIONS TO AVOID	Avoid evaporation to dryness. If allowed to dry, product residue is incompatible with flammable organic materials, reducing agents, and chlorine or hypochlorite products. This product is incompatible with caustic materials.
HAZARDOUS DECOMPOSITION PRODUCTS	Nitrogen oxides, ammonia

SECTION 11: TOXICOLOGICAL INFORMATION		
INHALATION	ACUTE	Spray or mist may irritate respiratory tract.
	CHRONIC	There are no known chronic inhalation effects.
SKIN	ACUTE	May irritate the skin.
	CHRONIC	There are no known chronic dermal effects.
EYE	ACUTE	May irritate the eyes.
INGESTION	ACUTE	Ingestion of large amounts may cause violent gastroenteritis.
	CHRONIC	There are no known chronic ingestion effects.
LD50		>2000 mg/kg, oral (rat)
LC50		Not applicable
Acute Toxicity Estimate		>3900 mg/kg
CARCINOGENICITY/MUTAGENICITY		There are no known carcinogenic or mutagenic properties
REPRODUCTIVE EFFECTS		There are no known reproductive effects
NEUROTOXICITY		There are no known neurotoxic effects
OTHER EFFECTS		No other effects are known
TARGET ORGANS		Target organs include skin and eyes

SECTION 12: ECOLOGICAL INFORMATION

California Title 22 Acute Toxicity Screening Protocol:

Fish bioassay (96 hr.):

Test concentration, ppm	Survival, %
0	100
250	95
750	100

The products of biodegradation are non-toxic. This product does not show any bioaccumulation phenomena.

SECTION 13: DISPOSAL CONSIDERATIONS

SPILL/LEAK PROCEDURES	Only properly protected personnel should remain in the spill area; dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with water. Stop or reduce discharge if it can be done safely.
CLEANUP	Mop up and containerize for subsequent recycling or disposal. Triple rinse empty containers with water prior to reconditioning.
REGULATORY REQUIREMENTS	Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations. NOTE: State and local regulations may be more stringent than federal regulations.
DISPOSAL	Material that cannot be used, or reprocessed for use, and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal.

SECTION 14: TRANSPORT INFORMATION		
LAND – DOT	**UN/NA IDENTIFICATION NUMBER:**	Not Applicable to unused finished product
	UN-PROPER SHIPPING NAME:	Not Applicable to unused finished product
	TRANSPORT HAZARD CLASS:	Not Applicable to unused finished product
	PACKING GROUP:	Not Applicable to unused finished product
	MARINE POLLUTANT:	Not Applicable to unused finished product
	HAZARD CLASS:	Not Applicable to unused finished product
WATER – IMO/IMDG	**UN/NA IDENTIFICATION NUMBER:**	Not Applicable to unused finished product
	UN-PROPER SHIPPING NAME:	Not Applicable to unused finished product
	TRANSPORT HAZARD CLASS:	Not Applicable to unused finished product
	PACKING GROUP:	Not Applicable to unused finished product
	MARINE POLLUTANT:	Not Applicable to unused finished product
AIR – ICAO/IATA *For product quantities less than 0.5 Kg*	**UN/NA IDENTIFICATION NUMBER:**	Not Applicable to unused finished product
	UN-PROPER SHIPPING NAME:	Not Applicable to unused finished product
	TRANSPORT HAZARD CLASS:	Not Applicable to unused finished product
	PACKING GROUP:	Not Applicable to unused finished product
	MARINE POLLUTANT:	Not Applicable to unused finished product

SECTION 15: REGULATORY INFORMATION	
OSHA	Hazard Communication Standard: Not regulated.
OSHA	Process Safety Standard: No
CAA	Section 112r: No
CERCLA	Section 103: No RQ: None
SARA	Section 302: No; SARA Section 304: No; SARA Section 313: No
SARA HAZARD CATEGORIES 311/312	Not listed.
TSCA	The ingredients of this product are on the TSCA Inventory List.

SECTION 16: OTHER INFORMATION	
DISCLAIMER:	The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial and local laws.
REVISION INDICATOR:	Revision 0: (This SDS replaces the former MSDS for this product pursuant to OSHA 1910.1200(g) Appendix D. The MSDS for this product should be considered obsolete).