Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code	SODIUMBISULFATESOLUTION
Product name	Sodium Bisulfate Solution
Chemical Name	Aqueous Sodium Bisulfate Solution
Molecular Formula	H2O4S•Na + H2O
Product Catalog Numbers	LL5035SB; PP140-40CEPSBSB; PP140-40CEPSBTB; PP140-40CEPSBTW; PP141-40AEPSBTB; PP141-40ASBTBLS

Company/undertaking identification

EP Scientific Products/ThermoFisher
520 North Main Street
Miami, OK 74354
Business Phone: 1-(828)-658-2711

EMAIL ADDRESS FOR PRODUCT INFORMATION:
cservice@epscientific.com

24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident. Spill, Leak, Fire, Exposure, or Accident. Call CHEMTREC

CHEMTREC: 1-800-424-9300 (U.S./Canada/Puerto Rico) [24-hours]
CHEMTREC: +1-703-527-3887 (Outside North America) [24-hours]

Country Specific Emergency Number (if available):

Product Use: Various

SECTION 2: Hazards identification

GHS - Classification

Signal Word
DANGER

Hazard pictograms

Health hazards

Skin corrosion/irritation	Category 1 B

Physical hazards
Not Hazardous

Environmental hazards
Not Hazardous

Hazard Statements
H314 - Causes severe skin burns and eye damage

Precautionary Statements

Prevention
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P363 - Wash contaminated clothing before reuse

Storage
P405 - Store locked up

Disposal
P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards
Not Applicable

HMIS

Health	3
Flammability	0
Reactivity	0

EMERGENCY OVERVIEW: Product Description: This product is a clear, colorless, odorless aqueous solution. Health Hazards: The product is corrosive and can cause severe irritation or burns by all routes of exposure. Repeated inhalation of low level concentrations may cause reduced lung capacity. Chronic skin exposure to low concentration may result in dermatitis. Flammability Hazards: This product is not flammable or combustible. If involved in a fire it may generate irritating fumes and toxic gases (e.g., sulfur oxides). Reactivity Hazards: This product is not reactive. This solution is corrosive to some metals. Environmental Hazards: Large quantities released to the environment may have an adverse effect. Emergency Considerations: Emergency responders should wear appropriate protection for situation to which they respond.

SECTION 3: Composition/information on ingredients

Component	CAS-No	EINECS-No	Weight %
Water 7732-18-5 (80.0-85.0)	7732-18-5	231-791-2	80.0-85.0
Sodium bisulfate 7681-38-1 (15.0-20.0)	7681-38-1	231-665-7	15.0-20.0

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures
All first aid procedures should be periodically reviewed by a doctor familiar with the material and its conditions of use in the workplace. Provide general supportive measures (comfort, warmth, rest). Consult a doctor and/or the nearest Poison Control Centre for all exposure except minor instances of inhalation or skin contact. Take a copy of label and SDS to physician or health professional with the contaminated individual.

Skin contact If skin contact causes irritation, flush with running water. Under running water, remove contaminated clothing, shoes, and leather goods (e.g., watchbands, belts). Transport victim to an emergency care facility immediately. Discard contaminated clothing, shoes and leather goods. DO NOT reuse. Seek medical attention if adverse effects occur after flushing.

Eye contact Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20 minutes, by the clock, while holding the eyelid(s) open. Have victim "roll" eyes. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting. Take care not to rinse contaminated water into the non-affected eye or onto the face. If irritation persists, repeat flushing. Quickly transport victim to an emergency care facility.

Ingestion If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or is convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 240 to 300 mL (8 to 10 oz.) of water to dilute material in stomach. If milk is available, it may be administered AFTER the water has been given. If vomiting occurs naturally, rinse mouth and repeat administration of water. Quickly transport victim to an emergency care facility.

Inhalation If mists or sprays from of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. If breathing is difficult, give oxygen. Seek immediate medical attention.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed
H314 - Causes severe skin burns and eye damage

Indication of any immediate medical attention and special treatment needed
Treat symptoms and eliminate exposure.

Medical conditions aggravated by exposure
Pre-existing skin and respiratory disorders or severe hepatic dysfunction may be aggravated by exposure to this product.
PROTECTION OF FIRST AID RESPONDERS: See Sections 6 (Accidental Release Measures) and 8 (Exposure Controls-Personal Protection).
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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	Use fire extinguishing materials appropriate for surrounding materials.
Unsuitable extinguishing media	No information available.

Special hazards arising from the substance or mixture
This product is corrosive and presents a contact hazard to fire-fighters. When involved in a fire, this product may decompose and produce irritating fumes and toxic gases (e.g., sulfur oxides). Closed containers may explode in the heat of a fire. Contact with some metals may produce extremely flammable hydrogen gas.

Advice for fire-fighters
Approach spill from up-wind. Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel.

Explosion Sensitivity to Mechanical Impact/ Explosion Sensitivity to Static Discharge
Not sensitive

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Trained personnel using pre-planned procedures should respond to uncontrolled releases. In case of a spill, clear the affected area and protect people. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Avoid allowing water runoff to contact spilled material. Call CHEMTREC (1-800-424-9300) for emergency assistance. Or if in Canada, call CANUTEC (613-996-6666). The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Controls and Personal Protective Equipment), if applicable, and have at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus.
EQUIPMENT: Proper protective equipment should be used.
Small Spills: Wear double-gloves (rubber over latex gloves), rubber apron, and splash goggles or safety glasses.
Large Spills: Trained personnel following pre-planned procedures should handle non-incidental releases. Minimum Personal Protective Equipment should be rubber gloves, rubber boots, face shield, and Tyvek suit. Minimum level of personal protective equipment for releases in which the level of oxygen is less than 19.5% or is unknown must be Level B: triple-gloves (rubber gloves and nitrile gloves over latex gloves), chemical resistant suit and boots, hard hat, and Self-Contained Breathing Apparatus.

Environmental precautions
Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Do not flush to sewer.

Methods and material for containment and cleaning up
Small Spills: Absorb spilled liquid with polypads, or other suitable absorbent materials. Wash contaminated area with soap and water, absorb with polypads or other appropriate material, and rinse with water.
Large Spills: Absorb spilled liquid with polypads, or other suitable absorbent materials. Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Spill should be neutralized with material appropriate for acidic materials. Monitor area and confirm levels are bellow exposure limits given in Section 8 (Exposure Controls-Personal Protection), if applicable, before non-response personnel are allowed into the spill area.
All Spills: Place all spill residue in a double plastic bag or other containment and seal, place in appropriate container and dispose of properly. Decontaminate the area thoroughly. After all spill residue has been removed from the area, rinse the area with flooding quantities of water. Do not mix with wastes from other materials. If necessary, discard all stained response equipment or rinse with soapy water before returning such equipment to service.

Reference to other sections
See Section 13, Disposal Considerations for more information.

SECTION 7: Handling and storage

Precautions for safe handling
All employees who handle this product should be trained to handle it safely. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Use in a well-ventilated location. If during the use of this product mists or sprays are generated, avoid breathing, or skin or eye contact. Use in a well-ventilated location, segregated from other materials and operations. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Areas in which this product is used should be wiped down, so that this product does not accumulate. .

Conditions for safe storage, including any incompatibilities
Store this product in a cool, dry location, away from sources of intense heat. Store away from incompatible materials (see Section 10, Stability and Reactivity) and moisture. Use in a well-ventilated location, segregated from other materials and operations. Areas in which this product is used should be wiped down, so that this product does not accumulate. Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Storage facilities should be made of corrosion-resistant materials. Store in sealed containers. Storage tanks should be above ground and surrounded with a dike capable of holding entire contents.

Specific end use(s)
This product has various applications/uses. Follow all industry standards when using this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT
When cleaning non-disposable equipment, wear latex or butyl rubber (double gloving is recommended), goggles, and lab coat. Wash equipment with soap and water. Wipe equipment down with damp sponge or polypad. Collect all rinsates and dispose of according to applicable Federal, State, and local procedures standards.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	ACGIH-TLVs (TWA)	ACGIH-TLVs (STEL)	OSHA-PELs (TWA)	OSHA-PELs (STEL)
Water	Not Established	Not Established	Not Established	Not Established
Sodium bisulfate	Not Established	Not Established	Not Established	Not Established

Chemical Name	NIOSH-RELs (TWA)	NIOSH-RELs (STEL)	NIOSH (IDLH)	Other
Water	Not Established	Not Established	Not Established	Not Established
Sodium bisulfate	Not Established	Not Established	Not Established	Not Established

International Exposure Limits Currently, there are no international exposure limits in place for Sodium Bisulfate. Exposure limits can be added should be checked for currency.

Engineering measures This product should be used areas with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits provided in this section, if applicable. Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside, taking necessary precautions for environmental protection. An eyewash and safety shower should be readily accessible.

Exposure controls

Personal Protective Equipment
The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hard

Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

Respiratory protection
Maintain airborne contaminant concentrations below limits listed above, if applicable. In instances where inhalable aerosols may be generated, and respiratory protection is necessary, use only respiratory protection authorized under appropriate regulations. In the U.S., oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

Hand protection	Use butyl rubber, Teflon, Viton, Saranex, or Responder gloves for routine industrial use. Use triple gloves for spill response, as stated in Section 6 (Accidental Release Measures) of this SDS. If necessary, refer to applicable regulations.
Eye protection	Splash goggles or safety glasses. Splash goggles and faceshield should be considered when handling solutions made from this product. If necessary, refer to appropriate country regulations and standards for further information.
Skin and Body Protection	Use body protection appropriate for task. Full-body chemical protective clothing is recommended for emergency response procedures. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection. Refer to appropriate country regulations and standards for further information.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls
Prevent material from entering sewer or confined spaces, waterways, soil or public waters. Do not flush to sewer.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	liquid	
Color	clear, Colourless	
Odor	odorless	
Molecular Weight	120.06	
pH	< 2	
Freezing point	Similar to water (0°C [32°F])	
Melting point / melting range	**°C** Mixture has not been tested	**°F** Mixture has not been tested
Boiling point / boiling range	**°C** 100°C	**°F** 212°F
Flash point	**°C** Mixture has not been tested	**°F** Mixture has not been tested
Autoignition Temperature	**°C** Mixture has not been tested	**°F** Mixture has not been tested
Decomposition temperature	**°C** Mixture has not been tested	**°F** Mixture has not been tested
Evaporation rate	(water = 1): ~ 1	
Flammability (solid, gas)	No data available	
Upper explosion limit	Mixture has not been tested	
Lower explosion limit	Mixture has not been tested	
Vapor Pressure	Mixture has not been tested	
Relative density	Mixture has not been tested	
Specific gravity	1.1 g/mL1.1 g/mL	
Solubility	Soluble in water	
Partition coefficient: n-octanol/water	No data available	
Explosive properties	Mixture has not been tested	
Oxidizing properties	No oxidizing properties	

Other information
HOW TO DETECT THIS SUBSTANCE (identification properties): Litmus paper (pH paper) will turn red when in contact with this solution.

SECTION 10: Stability and reactivity

Chemical stability	Stable under conditions of normal temperature and pressure. This product can react with some metals and will produce flammable hydrogen gas.
Possibility of hazardous reactions	will not occur.
Conditions to avoid	Avoid extreme temperatures, exposure to reactive metals, water reactive materials and incompatible chemicals. .
Incompatible materials	This product is incompatible with strong bases, alcohol, calcium hypochlorite, sodium carbonate and metals.
Hazardous decomposition products	Combustion: If exposed to extremely high temperatures, thermal decomposition may generate irritating fumes and toxic gases (e.g. sulfur oxides). Hydrolysis: None known. .

SECTION 11: Toxicological information

Information on toxicological effects

The health hazard information provided below is pertinent to employees using this product in an occupational setting.

The following paragraphs describe the symptoms of exposure by route of exposure.
Inhalation: If vapors, mists or sprays of this solution are inhaled, symptoms of exposure may include breathing difficulty, irritation of the mucus membranes, coughing, nasal congestion, and a sore throat. Damage to the tissues of the respiratory system may also occur, especially after prolonged exposure or exposure to high concentrations of this solution. Severe inhalation over-exposure can lead to chemical pneumonitis, pulmonary edema, and death. Chronic inhalation exposure may result in dental erosion and perforation of the nasal septum.
Contact with Skin or Eyes: Contact with the eyes will cause severe irritation, pain, reddening, watering, and possibly, blindness. Depending on the duration of skin contact, skin exposure may cause reddening, discomfort, severe irritation, and chemical burns. Chemical burns result in blistering of the skin and possible scarring. Repeated skin-exposure to low concentrations can result in dermatitis (inflammation and reddening of the skin).
Skin Absorption: Skin absorption is not a significant route of exposure for this product.
Ingestion: Ingestion is not anticipated to be a likely route of occupational exposure to this product. If ingestion does occur, severe irritation and burns of the mouth, throat, esophagus, and other tissues of the digestive system will occur immediately upon contact. Symptoms of such over-exposure can include nausea, vomiting, diarrhea. Ingestion of large volumes of this product may be fatal.
Injection: Though not anticipated to be a significant route of exposure for this product, injection (via punctures or lacerations by contaminated objects) may cause redness at the site of injection.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms. Exposure to this product may cause the following health effects:
Acute: This product is corrosive and may cause severe irritation or burns by all routes of exposure. Eye contact may cause tissue damage or blindness. Ingestion may be harmful or fatal.
Chronic: Chronic inhalation may cause reduction in lung capacity, bronchitis and erosion of the teeth. Repeated skin contact of this product may cause dermatitis.

TARGET ORGANS:
Acute: Respiratory system, skin, eyes.
Chronic: Skin, respiratory system.

TOXICITY DATA: Currently, the following toxicity data are available the components of this product.
SODIUM BISULFATE:
LD50 (Oral-Rat): 2490 mg/kg
Mutation in Microorganisms (Microorganism-Not Otherwise Specified) 1000 ppm.

Principal Routes of Exposure

Irritation	This product is corrosive and can cause severe irritation or burns by all routes of exposure.
Corrosivity	Conclusive but not sufficient for classification
Sensitization	This material is not known to be a human skin or respiratory sensitizer.
STOT - Single Exposure	Conclusive but not sufficient for classification
STOT - Repeated Exposure	Conclusive but not sufficient for classification
Carcinogenicity	The components of this product are not found on the following lists: U.S. EPA, U.S. NTP, U.S. OSHA, U.S. NIOSH, GERMAN MAK, IARC, or ACGIH and therefore are neither considered to be nor suspected to be cancer-causing agents by these agencies.
Mutagenicity	See information under 'Toxicity Data' above.
Reproductive toxicity	The components of this product are not reported to cause human embryotoxic, teratogenic or reproductive toxicity effects.

Aspiration hazard	Conclusive but not sufficient for classification

SYNERGISTIC MATERIALS
No synergistic materials are known.

ACGIH BIOLOGICAL EXPOSURE INDICES (BEIs)
Currently, ACGIH Biological Exposure Indices (BEIs) have not been determined for the components of this product.

SECTION 12: Ecological information

Toxicity
This material may cause harm to organisms if released to the environment. All release to terrestrial, atmospheric, and aquatic environments should be avoided. The following aquatic toxicity data are available for this compound:
SODIUM BISULFATE:
EC10 (Pseudomonas putida bacteria) 16 hours = > 1000 mg/L
EC50 (Daphnia magna Water Flea) 48 hours = 190 mg/L
LC50 (Culex Sp. larvae) 48 hours = 300 mg/L.

Mobility	No specific information available. Aqueous solutions are expected to be mobile in soil due to liquid form and solubility in water.
Persistence and degradability	No information available.
Bioaccumulative potential	No information available.

Results of PBT and vPvB assessment
No information available.
EXPOSURE CONTROLS: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Other adverse effects	Components of this product are not listed or expected to have having ozone depletion potential.

SECTION 13: Disposal considerations

Waste treatment methods
It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

DISPOSAL CONTAINERS: Waste materials must be placed in and shipped in appropriate 5-gallon or 55-gallon poly or metal waste pails or drums. Permeable cardboard containers are not appropriate and should not be used. Ensure that any required marking or labeling of the containers be done to all applicable regulations.

PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING: Wear proper protective equipment when handling waste materials. Dispose of in accordance with applicable Federal, State, and local procedures and standards.

EPA Waste number
Wastes of this product should be tested to see if they meet the criteria of Waste Characteristic D002 (Corrosivity)
WASTE CODES: 16 05 08: Discarded Organic Chemicals Consisting of or Containing Dangerous Substances.

SECTION 14: Transport information

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA)

This product is classified as dangerous goods, per the International Air Transport Association.

UN number	UN 2837
UN proper shipping name	Bisulfates, aqueous solution
Transport hazard class(es)	8 (Corrosive)
Packing group	III
Excepted Quantities	E1
Passenger and Cargo Aircraft Packing Instruction	852
Passenger and Cargo Aircraft Maximum Net Quantity per Pkg.	5 L
Passenger and Cargo Aircraft Limited Quantity Packing Instruction	Y841
Passenger and Cargo Aircraft Limited Quantity Maximum Net Quantity per Pkg	1 L
Cargo Aircraft Only Packing Instruction	856
Cargo Aircraft Only Maximum Net Quantity per Pkg.	60 L
Special Provisions	A3, A803
ERG Code	8L

U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS

This product is classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

UN number	UN 2837
UN proper shipping name	Bisulfates, aqueous solution
Transport hazard class(es)	8 (Corrosive)
Packing group	III
DOT Label(s) Required	Class 8 (Corrosive)
Emergency Response Guidebook Number, 2012	154
Marine Pollutant	This product does not meet the criteria of the DOT as Marine Pollutant (as defined by 49 CFR 172.101, Appendix B). NOTE: Shipments of this product may be shipped under small quantity and limited quantity exceptions as indicated under 49 CFR §173.4 and 49 CFR §173.154, if all requirements are met.

Quantity Exception

Small Quantity Exception (49 CFR 173.4): Small quantities of Class 8 material are not subjected to other requirements of the Hazardous Materials Regulations (Subchapter C) when the maximum quantity per inner receptacle is limited to 30 mL (liquids). Refer to 49 CFR 173.4 for specific information in packaging small quantity materials.

Limited Quantity Exceptions [49 CFR 173.154(b)(2)]: Limited quantities for Class 8, Packing Group III materials have inner packagings not over 4.0 L [1 gal] (liquids) net capacity each, packed in strong outer packaging.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS

This product is classified as Dangerous Goods, per regulations of Transport Canada.

UN number	UN 2837
UN proper shipping name	Bisulfates, aqueous solution
Transport hazard class(es)	8 (Corrosive)
Packing group	III
Hazard Label(s) Required	Class 8 (Corrosive)
Special Provisions	None
Explosive Limit and Limited Quantity Index	5 L
ERAP Index	None
Passenger Carrying Ship Index	None
Passenger Carrying Road or Rail Vehicle Index	5 L
Marine Pollutant	This product does not meet the criteria of a Marine Pollutant under UN criteria.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO)

This product is classified as dangerous goods, per the International Maritime Organization.

UN number	UN 2837
UN proper shipping name	Bisulfates, aqueous solution
Transport hazard class(es)	8 (Corrosive)
Packing group	III
Hazard Label(s) Required	Class 8 (Corrosive)
Special Provisions	223
Excepted Quantities	E1
Limited Quantities	5 L
Packing	P001, LP01, IBC03
Tanks	T4, TP2
EmS	F-A, S-B
Stowage and Segregation	Category A
Marine Pollutant	This product does not meet the criteria of a Marine Pollutant under UN criteria.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR)

This product is classified by the Economic Commission for Europe to be dangerous goods.

UN number	UN 2837
UN proper shipping name	Bisulfates, aqueous solution
Transport hazard class(es)	8 (Corrosive)
Packing group	III
Classification Code	C1
Label	8
Special Provisions	None
Limited Quantities	5 L
Excepted Quantities	E1
Packing Instructions	P001, IBC03, LP01, R001
Mixed Packing Provisions	MP19
Portable Tank & Bulk Container Packing Instructions	T4
Portable Tank & Bulk Container Special Provisions	TP1
Hazard Identification No.	80

Environmental hazards

This material does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); components are not specifically listed in Annex III under MARPOL 73/78

Special precautions for user

Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

See the information under the individual jurisdiction listings for IBC information.

SECTION 15: Regulatory information

United States regulations

U.S. SARA Reporting Requirements: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.
U.S. SARA Section 302 Threshold Planning Quantity (TPQ): None.

U.S. SARA Section 304 Reportable Quantity (TPQ): None
U.S. CERCLA Reportable Quantity (RQ): None.
U.S. TSCA Inventory Status: The components of this product are listed on the TSCA Inventory.
Other U.S. Federal Regulations: Not applicable.

California Proposition 65
The components of this product are not on the California Proposition 65 Lists.

Canadian regulations

Canadian DSL/NDSL Status: The components of this product are listed on the DSL inventory.
Canadian Environmental Protection Agency (CEPA) Priorities Substances List: Not applicable.

WHMIS Hazard Class
E - Corrosive material

SECTION 16: Other information

Reason for revision	SDS sections updated.
Revision number	1
Revision date	21-Dec-2017

Product Use: Various.

References
- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED,INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet