OSHA Hazard Communication Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

SDS No: BOCD5050 **Date Prepared:** 08/17/2018

Bio-Oxygen® Chem Decon Mixture (Part A&B)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Bio-Oxygen® Chem Decon Mixture (Part A&B)

PRODUCT DESCRIPTION: Proprietary Chemical and Biological Decontaminate

PRODUCT CODE: 23065, 23069, 23070

ALTERNATE TRADE NAME(S): Bio-Oxygen Chem Decon

MANUFACTURER

24 HR. EMERGENCY TELEPHONE NUMBERS

Artemis Bio Solutions

960 N Industrial Drive Suite 4

Elmhurst, IL 60126

Emergency Contact: INFOTRAC

Emergency Phone: 1(800) 535-5053

Alternate Emergency Phone: 1(352) 323-3500

Customer Service: 1(630) 359-4090 E-Mail: info@artemisbiosolutions.com

AAPCC Poison Help: (800) 424-9300

CANUTEC (Canadian Transportation): (613) 996-6666

CHEMTREC (US Transportation): (800) 424-9300 **US PATENTS:** 6,566,574 B1 AND 7,271,137 B2

Made in the USA

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2 Eve Irritation, Category 2

Environmental:

Aquatic Toxicity, Category 3

GHS LABEL



Exclamation mark

SIGNAL WORD: WARNING HAZARD STATEMENTS

H319: Causes serious eye irritation.

H315: Causes skin irritation.

PRECAUTIONARY STATEMENTS

Prevention:

P264: Wash ... thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P363: Wash contaminated clothing before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

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P332+P313: If skin irritation occurs: Get medical advice/attention.

Storage:

P402+P404: Store in a dry place. Store in a closed container.

Disposal:

P501: Dispose of contents/container to ...

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
N-alkyl (c12-18)-n,n,-dimethyl-n-benzylammonium Chloride	3 - 4	68391-01-5
Quaternary Ammonium Cpds., N,n,n,n',n'- Pentamethyl-n'-tallow Alkyl Trimethylenedi-, Chlorides	1 - 2	68607-29-4
Hydrogen Peroxide	7 - 7.99	7722-84-1
Potassium Carbonate	10	584-08-7
2-propanol	< 1	67-63-0

COMMENTS: Formulation is based on weight % If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for 15 minutes. Get medical attention, if irritation persists.

SKIN: Extended contact may cause irritation or deffating. Flush skin with water for 15 minutes. Get medical attention for any irritation that persists.

INGESTION: May cause a gastric disturbance. Drink lots of water or preferably, milk or juices. Do not induce vomiting. Get medical attention if effects persist.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. If unconcious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Adverse symptoms may include pain or irritation, watering, and redness.

SKIN: Adverse symptoms may include irritation and redness.

INGESTION: Adverse symptoms may include nausea and vomiting.

INHALATION: Adverse symptoms may include respiratory tract irritation and coughing.

NOTES TO PHYSICIAN: Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: NA = Not Applicable

GENERAL HAZARD: Product is not combustible or an explosive.

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

FIRE FIGHTING PROCEDURES: Promtly remove all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

FIRE FIGHTING EQUIPMENT: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing

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apparatus with full face piece operated in the pressure demand or other positive pressure mode. Increases the flammability of combustible, organic and readily oxidizable materials.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Stop leak if without risk. Move containers from spill area. Dilute with water and mop if water-soluble. Alternately, or if water-soluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

LARGE SPILL: Dike area to contain spill. Wash the spill site with water. See section 13, Disposal Considerations, for additional information.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid dispersal of spilled material and runoff and contact with waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers or waterways).

GENERAL PROCEDURES: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). Water polluting material. May be harmful to the environment if released in large quantities.

SPECIAL PROTECTIVE EQUIPMENT: Wear protective gloves/protective clothing/eye protection/face protection.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use only in a well ventilated area.

HANDLING: Do not get in eyes. Do not swallow. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. See section 8, Exposure Controls and Personal Protection.

STORAGE: Store in accordance with local regulations. Store in a segregated and approved area in original container protected from sunlight in a dry, cool and well-ventilated and approved area away from incompatible materials. Keep container closed to prevent drying out. Move container away from oxidizing materials. Use appropriate containment to avoid environmental contamination.

STORAGE TEMPERATURE: Store in a cool place below (140) F (60) C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)						
	EXPOSURE LIMITS					
Chemical Name	Ту	ре	ppm	mg/m³		
2-propanol	OSHA PEL	TWA	400	980		
	ACGIH TLV	TWA	200	490		
		STEL	400	960		
	Supplier OEL	TWA	NL	NL		
		STEL	NL	NL		

ENGINEERING CONTROLS: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only adequate ventilation. Local exhaust ventilation may be necessary for some operations.

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PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

SKIN: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

RESPIRATORY: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use the approved respirator. Selection of airpurifying or positive-pressure supplied air, will depend on the specific operation and the potential airborne concentration of the material. Use NIOSH approved Respirator with an OV/P100 cartridge if necessary.

PROTECTIVE CLOTHING: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid
ODOR: Amine-like odor

ODOR THRESHOLD: Not yet Determined **APPEARANCE:** Clear to straw liquid

COLOR: Clear to straw

pH: 11 to 13

PERCENT VOLATILE: 0

FLASH POINT AND METHOD: NA = Not Applicable

FLAMMABLE LIMITS: N/A to N/A

AUTOIGNITION TEMPERATURE: Not yet Determined

VAPOR PRESSURE: 20 mm Hg at 20°C (68°F)

VAPOR DENSITY: 1.08 lb/ft3
BOILING POINT: 100°C (212°F)
FREEZING POINT: 0°C (32°F)
MELTING POINT: 0°C (32°F)

THERMAL DECOMPOSITION: Not Determined SOLUBILITY IN WATER: Completely soluble in water

DENSITY: ~ 8.8 at 20°C (68°F)

SPECIFIC GRAVITY: 1.06 to 1.07 at 20°C (68°F)

VISCOSITY: Not yet Determined

(VOC): None

10. STABILITY AND REACTIVITY

REACTIVITY: Normally reactive if handled properly

HAZARDOUS POLYMERIZATION: Product will not undergo polymerization.

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STABILITY: Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID: Keep out of reach of children.

POSSIBILITY OF HAZARDOUS REACTIONS: None expected under ordinary conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce toxic vapors/fumes of amines and other organic materials, and oxides of carbon and nitrogen.

INCOMPATIBLE MATERIALS: None known based on the information supplied.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY

IARC: Not classified as a human carcinogen.

NTP: Not classified as a human carcinogen.

OSHA: Not classified as a human carcinogen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No environmental data has been collected for this product.

ECOTOXICOLOGICAL INFORMATION: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

BIOACCUMULATION/ACCUMULATION: Not yet Determined

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose in accordance with all local, state, and federal regulations.

FOR LARGE SPILLS: Do not allow product to reach sewage system.

PRODUCT DISPOSAL: Disposal must be made according to official regulations.

EMPTY CONTAINER: Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

OTHER SHIPPING INFORMATION: Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

AIR (ICAO/IATA)

SHIPPING NAME: Not Regulated

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Not hazardous

313 REPORTABLE INGREDIENTS: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986

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(SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
N-alkyl (c12-18)-n,n,-dimethyl-n-benzylammonium Chloride	68391-01-5
Quaternary Ammonium Cpds., N,n,n,n',n'- Pentamethyl-n'-tallow Alkyl Trimethylenedi-, Chlorides	68607-29-4
Hydrogen Peroxide	7722-84-1
Potassium Carbonate	584-08-7
2-propanol	67-63-0

TSCA STATUS: Some ingredients are listed on the TSCA chemical substance inventory.

REGULATIONS

STATE REGULATIONS: Not yet Determined

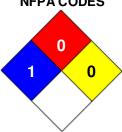
16. OTHER INFORMATION

PREPARED BY: LA CHEM **Date Prepared:** 08/17/2018

HMIS RATING



NFPA CODES



MANUFACTURER DISCLAIMER: While reasonable care has been taken to ensure the accuracy and completeness of the information regarding the material described herein, it is the purchaser's responsibility to ensure the suitability of such information as it applies to the purchaser's intended use of the material. Artemis Bio Solutions assumes no responsibility resulting from the use of this SDS.