

SAFETY DATA SHEET

BIOSAN 2205 MPS

Section 1. Chemical Product and Company Information

Product Name : BIOSAN 2205 MPS
 Other means of identification : Peracetic Acid, Acetyl Hydroperoxide, Peroxyacetic Acid
 Recommended Use : Antimicrobial
 Restrictions on Use : Reserved for industrial and professional use.

Supplier Information : Biosan LLC
 26 Freedom Way
 Saratoga Springs, NY 12866
 (518) 886-9827

Dilution rate : .0036% - 0.95%
 Date of issue : 11/07/2019

EMERGENCY HEALTH INFORMATION: 1 (800) 424-9300
 Outside United States and Canada CALL: +1 (703) 741-5500

Section 2. Hazards Identification

GHS Classification

Oxidizing liquids : Category 2
 Acute toxicity (Oral) : Category 4
 Skin corrosion : Category 1A
 Serious eye damage : Category 1

GHS Label Element

Hazard pictograms :



Signal Word : Danger
 Hazard Statements : May intensify fire; oxidizer.
 Harmful if swallowed.
 Causes severe skin burns and eye damage
 Precautionary Statements :

Prevention:

Keep away from heat. Keep/Store away from clothing/ combustible materials. Take any precaution to avoid mixing with combustibles. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/ eye protection/ face protection. Warning! Do not use together with other products. May release dangerous gases (chlorine).

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all

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contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None Known

Section 3. Composition / Information on Ingredients

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Acetic acid	64-19-7	30 – 40
Peroxyacetic acid	79-21-0	22 - 25
Hydrogen peroxide	7722-84-1	5 - 7

Section 4. First Aid Measures

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

See toxicological information (Section 11)

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Section 5. Fire-Fighting Measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Including water and water spray.
Unsuitable extinguishing media	None known
Specific hazards during fire fighting	Oxidizer. Contact with other material may cause fire. Oxygen that can initiate or promote combustion.
Hazardous combustion products	Oxygen
Special protective equipment for fire-fighters	Use personal protective equipment.
Specific extinguishing methods	Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section 7. Handling and Storage

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Advice on safe handling	Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions for safe storage	Keep away from heat and sources of ignition. Keep in a cool, dry, well ventilated place. Keep away from oxidizing agents. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Storage temperature	It is best to store this product where temperatures will not exceed 86°F (30°C). Keep container closed when not in use.

Section 8. Exposure Controls / Personal Protection

	CAS-No	ACGIH TLV's		OSHA PEL's		NIOSH REL's	
		TWA	STEL	TWA	STEL	TWA	STEL
Acetic Acid	64-19-7	15ppm	10ppm	10ppm		10ppm	15ppm
Hydrogen Peroxide	7722-84-1	1ppm		1ppm		1ppm	
Peracetic Acid	79-21-0		0.4ppm				

Engineering measures	: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.
Personal protective equipment	: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.
Eye protection	: Safety goggles Face-shield
Hand protection	: Wear the following personal protective equipment: Standard glove type. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin protection	: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
Respiratory protection	: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after

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handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Section 9. Physical and Chemical Properties

Appearance	: Liquid
Color	: Colorless
Odor	: Pungent Vinegar Odor
pH	: < 0.5 at 25°C
Flash point	: 65 °C
Odor Threshold	: No data available
Freezing point	: -49°C (-56°F)
Initial boiling point and boiling range	: No data available
Evaporation Rate	: >1.0; (Butyl acetate = 1)
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: 22 mm Hg (25°C)
Relative vapor density	: No data available
Relative density	: 1.141 at 25°C
Water solubility	: Completely miscible (100%)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: Strong Oxidizer
Molecular weight	: No data available
VOC	: No data available

Section 10. Stability and Reactivity

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Chemical stability	Potential for exothermic hazard Stable under normal conditions.
Possibility of hazardous reactions	Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions to avoid	Heat, flames and sparks. Elevated temperatures, any sources of heat, combustibles such as paper and wood and contamination. For quality purposes, avoid temperatures above 86F. Higher temperatures will accelerate decomposition resulting in loss of assay.
Incompatible materials	Bases, Soft Metals, Organic materials, Strong Reducing Agents, and combustible Materials.
Hazardous decomposition products	Decomposition products may include the following materials: Carbon oxides Acetic acid

Section 11. Toxicological Information

Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact
Potential Health Effects	
Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Toxicity

Acute oral toxicity	: 4 h Acute toxicity estimate : > 40 mg/l
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: Acute toxicity estimate : 2,221 mg/kg
Skin corrosion/irritation	: No data available
Serious eye damage/eye irritation	: No data available
Respiratory or skin sensitization	: No data available
Carcinogenicity IARC	: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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Carcinogenicity OSHA	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Carcinogenicity NTP	:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive effects	:	No data available
Germ cell mutagenicity	:	No data available
Teratogenicity	:	No data available
STOT-single exposure	:	No data available
STOT-repeated exposure	:	No data available
Aspiration toxicity	:	No data available

Section 12. Ecological Information

Ecotoxicity

Environmental Effects : Toxic to aquatic life.

Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Ingredients

Toxicity to fish : Acetic acid 96 h LC50: 75 mg/l
Peroxyacetic acid 96 h LC50: 0.8 mg/l

Toxicity to daphnia and other aquatic invertebrates : Peroxyacetic acid 48 h EC50: 0.73 mg/l

Toxic to algae Peroxyacetic acid 72 h EC50: 0.7 mg/l
Hydrogen peroxide 72 h EC50: 1.38 mg/l

Persistence and degradability : No data available

Bioaccumulative potential : Log Pow -1.25, does not bioaccumulate.

Mobility in soil : No data available

Other adverse effects : No data available

Remarks : -Toxic to aquatic organisms
-Hazard for the environment is limited due to product properties:
considerable abiotic and biotic degradability, weak persistence of degradation products.
-Does not bioaccumulate

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Section 13. Disposal Considerations

Disposal methods	:	The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	:	Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste	:	D002 (Corrosive) D001 (Ignitable)

Section 14. Transport Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

UN number	:	3109
Description of the goods	:	Organic peroxide type F, liquid (Peroxyacetic acid)
Class	:	5.2 (8)
Packing group	:	
Environmentally hazardous	:	no

Sea transport (IMDG/IMO)

UN number	:	3109
Description of the goods	:	Organic peroxide type F, liquid (Peroxyacetic acid)
Class	:	5.2 (8)
Packing group	:	
Environmentally hazardous	:	no

Section 15. Regulatory Information



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EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity :

Ingredients	CAS-No	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic Acid	64-19-7	5000	15725

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No	Component RQ (lbs)	Calculated product RQ (lbs)
Peroxyacetic acid	79-21-0	500	3289

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

Peroxyacetic acid 79-21-0 15.0 %

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Peroxyacetic acid 79-21-0 15.0 %

California Prop 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

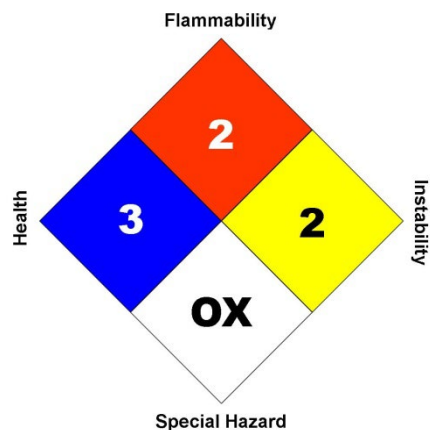
The ingredients of this product are reported in the following inventories:

United States TSCA Inventory : On TSCA Inventory
Canadian Domestic Substances List (DSL) : All components of this product are on the Canadian DSL.
Australia Inventory of Chemical Substances (AICS) : On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemical Substances : On the inventory, or in compliance with the inventory
Japan. ENCS - Existing and New Chemical Substances Inventory : On the inventory, or in compliance with the inventory
Japan. ENCS - Existing and New Chemical Substances Inventory : On the inventory, or in compliance with the inventory
Japan. ISHL - Inventory of Chemical Substances : On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC) : On the inventory, or in compliance with the inventory

Section 16. Other Information

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HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	2

0 = Not Significant, 1 = Slight

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Issuing date : 03/14/22
Version : 3.0
Prepared by : RJD

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.