



Product Bulletin

BIOSAK 604

Microbiocide

DESCRIPTION:

BIOSAK 604 is a broad-spectrum polymeric quaternary ammonium compound designed specifically for control of bacteria, algae, and fungi in industrial and commercial recirculating cooling air systems.

PERFORMANCE FEATURES AND BENEFITS:

- Does not foam
- Broad pH range

TYPICAL PHYSICAL PROPERTIES:

- APPEARANCE-Amber to brown liquid
- SPECIFIC GRAVITY-1.03
- PH (NEAT)-6.0
- DENSITY (LBS/GAL)-8.6

APPLICATION AND PACKAGING:

BIOSAK 604 can be fed by chemical-metering pumps into the recirculating water or slug fed into the tower sump. The concentration and frequency of addition will depend on the system volume and severity of the microbiological problem. BIOSAK 604 is available in 55/30/5 gallon blue containers.

MATERIAL SAFETY DATA SHEETS:

WASAK, Inc. maintains MATERIAL SAFETY DATA SHEETS (MSDS) on all of its products. MSDS contain important information that you may need to protect your employees and customers against any known health and safety hazards associated with our products. MSDS should be reviewed by all individuals before handling WASAK products and we encourage posting its information. WASAK, Inc. sends MSDS on all initial shipments and updated MSDS are sent upon revision to all customers on record.

45 Park Place South, Suite 224

Morristown, NJ

(973) 605-8122

Wasak 3/93

MATERIAL SAFETY DATA SHEET

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Trade Name: BIOSAK 604

Section I: Manufacturer Information

WASAK, INC.
SUITE 224
45 PARK PLACE SOUTH
MORRISTOWN, NJ 07960

Emergency Phone Number: (800) 255-3924
Information Phone Number: (973) 605-8122
Updated: 2/3/1999

Section II: Hazardous Ingredients/Identity Information

Hazardous Components	CAS Number	OSHA PEL	ACGIH TLV	Percent
Iminioethylene Dichloride	31075-24-8	0.00	0.00	Minor Comp

Section III: Physical/Chemical Characteristics

Boiling Point: > 212.0 F	Vapor Pressure (mm Hg): NA
Evaporation Rate (water=1): < 1.00	Vapor Density (air=1) NA
Solubility in Water: Complete	Density (lb/ft ³): 64.5
Appearance and Odor: Brown colored liquid; Slight odor	Melting Point: NA
pH: 6.00	Specific Gravity (H ₂ O=1): 1.0300

Section IV: Fire and Explosion Hazard Data

Flash Point (Method Used): NA Flammable Limits: NA LEL: NA UEL: NA

Method Used: NA

Extinguishing Media:

This product is not combustible. Use extinguishing media suitable for surrounding materials.

Special Fire Fighting Procedures:

This product requires no special procedures during a fire. Fire fighters should be protected from direct physical contact with the product, since the exact nature and amounts of possible contaminants during a fire will be unknown.

Unusual Fire and Explosion:

As above

Section V: Reactivity Data

Stability: Stable

Conditions to Avoid: NA

Incompatibility (Materials to Avoid): None

Hazardous Decomposition or Byproducts: None

Hazardous Polymerization: May not occur

Conditions to Avoid: NA

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Section VI: Health Hazard Data**Route(s) of Entry:**

Inhalation? Strong

Skin? Slight

Ingestion? Strong

Health Hazards (Acute and Chronic): Acute and chronic health hazards are difficult to accurately assess for mixtures. In general, see the first aid section for acute effects; long term effects would have to be derived from these immediate results. Specific chronic effects can be studied from the individual hazardous chemicals as indicated under Section II as the best guess without extensive laboratory studies.

Carcinogenicity:

NTP? None known IARC Monographs? None known OSHA Regulated? None known

Signs and Symptoms of Exposure: This product may irritate eyes on contact, but no reaction is expected on skin contact. Oral ingestion may cause mild gastrointestinal distress.

Medical Conditions Generally Aggravated by Exposure: A knowledge of the available toxicology information and of the physical properties of the material suggests that exposure is unlikely to aggravate existing medical conditions. However, due to the widely varying uses and personal exposures possible, an individual will have to evaluate his/her particular situation.

Emergency and First Aid Procedures:

FAST RESPONSE DURING THE FIRST MINUTE after contact is critical for prevention of possibility of permanent damage.

EYES: Immediately flush eyes with water for at least 15 minutes. Seek medical attention as soon as possible.

SKIN: Wash twice with soap and warm water. Apply lotion if irritation continues.

INHALATION: Remove to fresh air, give oxygen if needed, or artificial respiration to maintain breathing. Get a doctor if indicated.

INGESTION: Wash mouth and other contacted parts with water.

Never give anything to an unconscious person. If conscious, **DO NOT** induce vomiting. Give one or two glasses of water, milk of magnesia, or milk to help neutralize the alkali. Call a doctor.

DO NOT INDUCE VOMITING IF:

-Victim is in convulsions

-Victim has symptoms of severe pain, burning sensation in the mouth or throat or is already vomiting

-Victim is known to have swallowed any petroleum product (solvents) or any acids or alkalis (caustics)

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Section VII: Precaution for Safe Handling and Use

Steps to be taken in case material is released or spilled: Absorb small spills with suitable material (sand clays, sawdust, earth) and place into leak-proof container for later disposal. Flush balance of area with water to remove residues. Dispose of all material in accordance with federal, state and local laws.

Waste Disposal Method: Since federal, state and local laws vary greatly from situation to situation, and since these materials are mixtures, no one preferred waste disposal method can be given. However, one must keep in mind that all of these type products are ultimately destined to go "down the drain" since they are cleaning compounds of one sort or another. Generally, in a highly diluted or completely neutralized state they present no particular environmental hazard; they can be treated as ordinary waste, which is piped to a sanitary sewer for proper waste treatment. Neither the product nor its effluent should be discharged into any river, lake, stream, creek or watershed that might contaminate drinking water or well water. Any discharge must be specifically permitted by the proper authority like the DEP or DER, depending on your state laws.

Precautions to be taken in handling and storage: Do not freeze product. Do not subject product to excessive heat. Keep out of the reach of children. Do not contaminate food stuffs. Do not mix with any other chemicals except under direct supervision of a chemist or technically trained supervisor. Mix only with water. During storage and transport of the product, keep dry at all times and do not exceed container integrity (i.e. improperly double or triple decking of palletized goods). If sensitivity or aggravation of allergy, or unanticipated personal health problems become evident, stop use and see your supervisor. Keep in mind that often the use solution and the concentrate will have different safety precautions.

Other precautions: Launder contaminated clothing before reuse. Discard all contaminated gloves, boots and other articles that cannot be properly cleaned.

Section VIII: Control Measures

Respiratory Protection (Specific Type): Usually none needed

Ventilation:

Local Exhaust: Recommended

Special: NA

Mechanical (General): Usually sufficient

Other: NA

Protective Gloves: Light rubber gloves for long use are recommended, i.e. Playtex type.

Eye Protection: Safety glasses or chemical splash goggles are always recommended, as are eyewash fountains in all industrial processing areas.

Other Protective Clothing or Equipment: Wear long sleeve shirts and pants. Launder dirty uniforms regularly. Wash or shower daily to maintain good cleanliness when in contact with various cleaning or water treatment chemicals.

Work/Hygienic Practices: Non-slip safety shoes with a splash apron are good practices to follow. ---Start Clean---Stay Clean---End Clean = Work Safely.

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Section IX: Documentary Information

Section II Hazardous Material Section Percentage Key. If no hazardous chemicals are present, then this section is not applicable.

Nil	=	0.0%	to	0.1%
Trace	=	0.1%	to	1.0%
Some	=	1.0%	to	5.0%
Minor Comp	=	5.0%	to	25.0%
Substantial	=	25.0%	to	50.0%
Major Comp	=	50.0%	to	100.0%

Substances listed in Section II are those identified as being present at a concentration of 1% or greater, or 0.1% of the substance is on the list of potential carcinogens cited in OSHA Hazard Communication STD.

If Section II does not contain any hazardous chemicals as presently defined in our applicable tables the message . . .

*****NO HAZARDOUS CHEMICALS*****

. . . will appear in this section above.

NOTE: for solid products, pH is taken of a 2% solution

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of the seller's knowledge or has been generated to the best of our ability without extensive research beyond our understanding or economic feasibility. Seller makes no warranty whatsoever, implied or of merchantability of the product or of results obtained from this report.

If you determine that this data does not meet your needs or that questions remain, consult our supplier before you purchase, store, transport or use this product.

Consult a technically trained service person or salesman for use of this product as it specifically pertains to your situation. Seller assumes no responsibility for injury to buyer or to third persons or for any damage to any property and buyer assumes all such risks.

BIOSAK - 604

ACTIVE INGREDIENT:

Poly(oxyethylene)dimethyliminolo ethylene-
(dimethyliminio)ethylene dichloride

15.0%
85.0%

INERT INGREDIENTS

Product weight 6.58 lbs. per gallon (1.03 kg/L)

KEEP OUT OF REACH OF CHILDREN CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Avoid breathing vapors. Avoid contact with skin, eyes, or clothing.

FIRST AID: If swallowed, drink large quantities of water. Do not induce vomiting. Get medical attention immediately. If in eyes: Flush with plenty of water for at least 15 minutes. Consult a physician if irritation occurs. In Case of Skin Contact: Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse. Get medical attention if irritation occurs.

ENVIRONMENTAL HAZARDS: This product is toxic to fish and aquatic organisms. Do not contaminate water by the cleaning of equipment or disposal of waste. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. BIOSAK - 604 is used to control algae, bacteria, and fungi in recirculating commercial and industrial water cooling towers. Prior to its use, systems must be cleaned to remove algal growth, microbiological slime, and other deposits. An initial slug addition of 4.0 to 10.0 fluid ounces of BIOSAK - 604 per 1000 gallons of water to provide a concentration of 32 to 80 parts per million of BIOSAK - 604, based on the total weight of water in the system, is recommended. Repeat initial dosage until control is evident.

Subsequent slug additions of 1.0 to 10.0 fluid ounces of BIOSAK - 604 per 1000 gallons of water (8 to 80 parts per million of BIOSAK - 604) should be employed every 2 to 5 days, or as needed. The frequency of addition depends upon the relative amount of biocontrol and the severity of the microbiological problem. Slug additions should be made in the sump or water cooling towers.

BIOSAK - 604 is used to control bacteria in industrial air-washing systems that maintain effective mist eliminating components. Prior to its use, systems should be cleaned to remove bacterial slime and other deposits. An initial slug dose of 14.8 to 24.7 fluid ounces of BIOSAK - 604 per 1000 gallons of water is recommended. Repeat initial dose until control is evident. Subsequent slug additions of 10.1 to 24.7 fluid ounces of BIOSAK - 604 per 1000 gallons of water should be employed each 1 to 5 days, or as needed. The frequency of addition depends upon the relative amount of biocontrol and severity of the bacterial problem. Slug additions may be made to the sump or to the water collection trays of the airwash system.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. STORAGE: Do not stack more than four drums high. Leaking or damaged drums should be placed in overpack drums for disposal. Spills should be absorbed in sawdust or sand and disposed of in a sanitary landfill. Keep container closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

PLASTIC: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **METAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Manufactured For:

WASAK INC.

401 Speedwell Ave. Suite 282

Morris Plains, NJ 07950

EPA REG. NO. 1448-212-88556 EPA EST. NO. 4875-NJ-1

NET CONTENTS 5 GAL