

MATERIAL SAFETY DATA SHEET

MSDS

BROMMAX 7.1

Date-Issued: September 8, 2010
Revision No: New MSDS

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BROMMAX 7.1

GENERAL USE: WATER TREATMENT ANTIMICROBIAL

MANUFACTURER

OSP Microcheck Inc.
#1, 1715 -27th Avenue N.E.
Calgary, Alberta T2E 7E1

EMERGENCY TELEPHONE NUMBERS

403-291-1658

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS#</u>	<u>Wt. %</u>
Sodium hydroxide	1310-73-2	1-5%
Sulfamic acid, N-Bromo, sodium salt	1004542-84-0	10-30%
Sodium Chloride	7647-14-5	3-13%
Water	7732-18-5	Balance

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, golden colored liquid

IMMEDIATE CONCERNS: DANGER: Causes severe burns. Corrosive. Causes skin and eye damage. Harmful if swallowed. May cause allergic skin reaction. Avoid contact with eyes, skin, mucous membranes or clothing. Wear goggles or safety glasses and rubber gloves when handling this product. Irritating to nose and throat. Avoid breathing vapor. Remove and wash contaminated clothing before reuse. Do not mix with any other chemicals.

POTENTIAL HEALTH EFFECTS

EYES: Causes severe eye burns. Do not get in eyes.

SKIN: Causes irritation of various degrees. Do not get on skin.

INGESTION: Harmful if swallowed. Causes gastrointestinal irritation, abdominal pain, nausea, vomiting and diarrhea.

INHALATION: Irritating to nose and throat. Avoid breathing vapors.

MEDICAL CONDITIONS AGGRAVATED: Existing dermatitis may be aggravated by exposure.

ROUTES OF ENTRY: Skin Contact, Inhalation, Ingestion, Eye Contact.

SENSITIZATION: Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

4. FIRST AID MEASURES

EYES: If in eyes: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Seek medical attention.

SKIN: If on skin or clothing: Remove contaminated clothing. Rinse skin immediately with plenty of water for at least 15 minutes. If irritation occurs or persists, seek medical attention.

INGESTION: If swallowed: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: If inhaled: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately.

NOTES TO PHYSICIAN: Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None

GENERAL HAZARD: Material is a strong oxidizer. May combine with various metals (at decomposition) to form further flammable mixtures.

EXTINGUISHING MEDIA: Water spray, carbon dioxide, foam, dry chemical

HAZARDOUS COMBUSTION PRODUCTS: In the event of combustion, nitrogen, bromine, hydrobromic acid vapors or gases may be formed. Do not breathe smoke fumes. Wear suitable protective equipment.

FIRE FIGHTING EQUIPMENT: Firefighters should wear full protective clothing and self contained breathing apparatus (SCBA). Thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Utilizing appropriate clothing and safety equipment to contain spill material. Cover the liquid with an inert absorbent. This product can be neutralized of its halogen (active ingredient) components by sprinkling sodium metabisulfite or sodium sulfite on the spilled material. Using clean, dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry plastic containers for disposal. Dispose of according to local, state and federal regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin or clothing. Avoid breathing vapors.

HANDLING: Use safe chemical handling procedures for the hazards presented by this material.

STORAGE: Keep this product in its original container when not in use. Store in cool, dry, well-ventilated area away from incompatible materials. Keep this product and all other chemicals out of children's reach.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS		
		OSHA PEL ppm mg/m ³	ACGIH TLV ppm mg/m ³	SUPPLIER OEL ppm mg/m ³
Sodium hydroxide	TWA	2	2	2 (ceiling)

ENGINEERING CONTROLS: General room ventilation plus local exhaust should be used to maintain exposure below TLV.

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: Wear goggles or safety glasses with side shields when handling this product.

SKIN: Wear rubber gloves when handling this product. Avoid contact with skin.

RESPIRATORY: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES: If product gets on clothing, remove and wash before reuse.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Not Available

APPEARANCE: Clear

COLOR: Gold

pH: >13

VAPOR PRESSURE: Not Available

VAPOR DENSITY: Not Available

BOILING POINT: Not Available

FREEZING POINT: <0°C (<32°F)

SOLUBILITY IN WATER: Soluble

SPECIFIC GRAVITY: 1.28 to 1.32 (water=1) at 20°C

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid contact with strong acids, (i.e., sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfamic) which can generate heat, splattering or boiling and the release of toxic fumes. Avoid contact with copper and iron. Avoid contact with strong oxidizers (i.e., peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

STABILITY: This product is stable under normal conditions.

POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

INCOMPATIBLE MATERIALS: Strong oxidizers, strong acids, strong alkalis, sulfites, nitrites

11. TOXICOLOGICAL INFORMATION

Toxicity Studies: Toxicity studies have been completed on this product. The results are shown below:

Acute Oral Toxicity (Albino Rats): > 5,000 mg/kg

Acute Dermal Toxicity (Albino Rats): > 2,000 mg/kg

Acute Inhalation Toxicity (Rats) (LC50) > 2.13 mg/L

Primary Skin Irritation Test (Albino Rabbits): Irritant

Primary Eye Irritation Test (Albino Rabbits): Acute irritant

12. ECOLOGICAL INFORMATION

Results below are based on the active product (reported as Cl2).

Avian Exposure:

Upland Game Birds:

Acute oral LD50 > 2,510 mg/kg

Subacute Dietary LC50 > 5,000 mg/kg

Aquatic Data:

Cold Water Fish, acute toxicity, LC50 1.35 ppm (max) (96 hr)

Warm Water Fish, acute toxicity, LC50 2.1 ppm (max) (96 hr)

Invertebrate (D. magna), acute toxicity, LC50 2.3 ppm (max) (48 hr)

13. DISPOSAL CONSIDERATIONS

Disposal: If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource and Recovery Act (RCRA) 40 CFR 261. It does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous liquid waste, it must be solidified with stabilizing agents (such as sand, clay or fly ash) so that no free liquid remains before disposal to a licensed industrial waste landfill. A non-hazardous liquid waste can also be deep well injected in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Proper shipping name/hazard class may vary by packaging, properties, and mode of transportation. Typical proper shipping names for this product are: (Note: sodium hydroxide may be used in addition to or in place of bromide salts if desired)

Road Transportation Modes: Corrosive liquid, n.o.s. (bromide salts), UN 1760

Air Transportation: Corrosive liquid, n.o.s. (bromide salts), UN 1760

Marine Transportation: Corrosive liquid, n.o.s. (bromide salts), UN 1760

Hazard Class, Primary: 8 – Corrosive

Packaging Group: III

IMDG Page No: ND

SECTION 15: REGULATORY INFORMATION

SECTION 16: OTHER INFORMATION

IATA Packing Instruction: 808

IATA Cargo Aircraft Limit: 1.0 L

Flash Point: None

15. REGULATORY INFORMATION

UNITED STATES

Federal Regulations:

OSHA's Hazard Communication Rule, 29 CFR 1910.1200: Based on our evaluation there are no applicable hazardous components.

CERCLA/SUPERFUND, 40 CFR 117, 301: N/A

SARA/SUPERFUND AMENDMENTS ACT OF 1986 (TITLE III) – SECTIONS 302,311,312,AND 313:

Section 302 – Extremely hazardous substances (40 CFR 355): This product does not contain ingredients listed in Appendix A and B as an extremely hazardous substance.

Sections 311 and 312 – Material Safety Data Sheet Requirements (40 CFR 370): Our hazard evaluation has found this product to be

mildly hazardous due to skin and eye corrosivity. The product should be reported under the following EPA hazard categories:

Yes Immediate (acute) health hazard
No Delayed (chronic) health hazard
No Fire hazard

Section 313 - List of Toxic Chemicals (40CFR 372): This product does not contain ingredients on the list of Toxic Chemicals.

Toxic Substance Control act (TSCA): The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

Food and Drug Administration: Federal Food, Drug, and Cosmetic Act: N/A

Resource Conservation and Recovery Act (RCRA), 40CFR 261 Subpart C and D: Consult Section 13 for RCRA classification.

Federal Water Pollution Control Act, Clean Water Act, 40 CFR 401.15: N/A

State Regulations:

California Proposition 65: None of the chemicals on the current Proposition 65 list are known to be present in this product.

Michigan Critical Materials: This product does not contain substance (s) identified on this list.

State Right to Know Laws: N/A

16. OTHER INFORMATION

HMIS RATING

HEALTH: 2

FLAMMABILITY: 0

PHYSICAL HAZARD: 0

PERSONAL PROTECTION: X

NFPA RATING

HEALTH: 2

FIRE: 0

REACTIVITY: 0

Key

4 = Severe

3 = Serious

2 = Moderate

1 = Slight

0 = Minimal

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