

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

1. PRODUCT IDENTIFICATION

Product Name: **BioSentry® Chlor-A-Foam™**
Product Number(s): D12709702-CAN, D12695561-CAN
Use: Cleaner
Manufacturer: HACCO, Inc.
110 Hopkins Drive
Randolph, WI 53956
Manufacturer Phone: 1-920-326-5141
Distributor: Neogen Corporation – Animal Safety
944 Nandino Boulevard
Lexington, KY 40511
Distributor Phone: 1-800-477-8201
Emergency Phone: Medical: 1-800-498-5743 (United States and Canada)
Spill: 1-800-424-9300 (United States)

2. HAZARDS IDENTIFICATION

Classifications: Specific Target Organ Toxicity: Respiratory Irritation, Category 3
Carcinogenicity: Category 1A
Specific Target Organ Toxicity: Repeated Category I
Dermal: Category 3

Signal Word (EPA): DANGER

Signal Word (OSHA): DANGER

Hazard Statements: Toxic in contact with skin.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure



Hazard Symbols:

Precautionary Statements: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection.
If on skin: Wash with plenty of soap and water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If exposed or concerned: Get medical advice/attention.
Call a poison control center, doctor or 1-800-498-5743 (Prosar) if you feel unwell.
Take off immediately all contaminated clothing and wash it before reuse.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: This product presents no significant hazards under normal conditions of use.

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

3. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Chemical Name</u> | <u>Common Name</u> | <u>CAS Number</u> | <u>Concentration</u> |
|--------------------------------|--------------------------------|-------------------|----------------------|
| Potassium Hydroxide | Potassium Hydroxide | 1310-58-3 | 1 – 5% |
| Sodium Hypochlorite | Sodium Hypochlorite | 7681-52-9 | 1 – 5% |
| Detergent Booster | Detergent Booster | 9016-45-9 | 0.1 – 1% |
| Foam Booster | Foam Booster | | 0.1 – 1% |
| Emulsifier | Emulsifier | | 1 – 5% |
| Chelating & Sequestering Agent | Chelating & Sequestering Agent | | 1 – 5% |

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling 800-498-5743, a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call 1-800-498-5743, a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 1-800-498-5743 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call 1-800-498-5743, a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Wash skin with soap and water.

Inhalation: Not applicable.

Most Important Symptoms/Effects:

This product may cause irritation with discomfort, tearing or blurred vision, eye corrosion with corneal or conjunctival ulceration, rash, skin burns or ulcerations, irritation of the upper respiratory tract with coughing or discomfort, corrosion to the mouth and upper gastrointestinal tract with abdominal discomfort, nausea, severe pain, diarrhea and possible collapse.

Indication of immediate medical attention and special treatment needed:

Not Applicable.

Further information is available from the Prosar Emergency Number (1-800-498-5743) provided in this documents.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO₂ extinguishing media. If water is to be used to fight fire, dike and collect run-off.

Specific Hazards:

During a fire, irritating and possible toxic gases may be generated by thermal decomposition of combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or product of combustion.

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Clean up spills immediately, observing precautions outlines in Section 8. Sweep up material and place in a compatible disposal container. Once all material is collected, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure rea out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING, AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limit

| <u>Chemical Name</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> | <u>OTHER</u> | <u>SOURCE</u> |
|--------------------------------|-----------------|-------------------------------|-----------------|----------------|
| Potassium Hydroxide | Not Established | 2 mg/m ³ (Ceiling) | Not Established | Not Applicable |
| Sodium Hypochlorite | Not Established | Not Established | Not Established | Not Applicable |
| Detergent Booster | Not Established | Not Established | Not Established | Not Applicable |
| Foam Booster | Not Established | Not Established | Not Established | Not Applicable |
| Emulsifier | Not Established | Not Established | Not Established | Not Applicable |
| Chelating & Sequestering Agent | Not Established | Not Established | Not Established | Not Applicable |

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Eye protection is not required for normal handling. Where eye contact is likely, wear tight-fitting chemical goggles.

Skin Contact: Gloves are not required for normal handling. Where heavy contact is likely, wear chemical resistant (such as nitrile or butyl) gloves.

Inhalation: Respiratory protection is not required for normal handling. In the event of an unusual dust exposure, use engineering controls or a NIOSH-approved particulate respirator (N, P, R, or HE filter) to keep exposure below the Occupational Exposure Limit.

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, yellow liquid
Odor: Chlorine
pH: 13.5-14.5
Melting Point: Not Applicable
Freezing Point: Not Available
Boiling Point and Boiling Range: >100°C
Flash Point (Test Method): Not Available
Flammable Limits (% in air): Not Available
Flammability: Not Available
Vapor Pressure: Not Available
Vapor Density: 1.15 g/ml
Relative Density: 9.18-10.01lbs/gal
Solubility (ies): Soluble
Partition Coefficient: Not Available
Viscosity: Not Available
Other: Not Available

10. STABILTY AND REACTIVITY

Reactivity: Not reactive
Chemical Stability: Stable under normal use and storage conditions
Possible Hazardous Reactions: Will not occur
Conditions to Avoid: None known
Incompatible Materials: Incompatible with acids, ammonia and amines.
Hazardous Decomposition Products: Hazardous gases/vapors produced are chlorine gas, Hydrogen Chloride, and phosphorus oxides.

11. TOXICOLOGICAL INFORMATION

Health Effects Information

Likely routes of exposure: Dermal, Inhalation, Ingestion
Symptoms of exposure: This product may cause irritation with discomfort, tearing or blurred vision, eye corrosion with corneal or conjunctival ulceration, rash, skin burns or ulcerations, irritation of the upper respiratory tract with coughing or discomfort, corrosion to the mouth and upper gastrointestinal tract with abdominal discomfort, nausea, severe pain, diarrhea and possible collapse.

Delayed, immediate and chronic effects of exposure: Not Available

Numerical Measures of Toxicity (Acute Toxicity/Irritation Studies)

| | | | |
|---------------------|--|--------------------------|-----------------------|
| Ingestion: | Oral LD ₅₀ (Rat): | 365 mg/kg body weight | (Potassium Hydroxide) |
| | Oral LD ₅₀ (Rat): | >8910 mg/kg body weight | (Sodium Hypochlorite) |
| Dermal: | Dermal LD ₅₀ (Rabbit): | >7940 mg/kg body weight | (Potassium Hydroxide) |
| | Dermal LD ₅₀ (Rabbit): | >10000 mg/kg body weight | (Sodium Hypochlorite) |
| Inhalation: | Inhalation LC ₅₀ (Rat,0.25 hour): | 10.5 mg/L | (Sodium Hypochlorite) |
| Eye Contact: | Risk of Severe Damage to Eyes | | |
| Skin Contact: | Sever Skin Irritation. | | |
| Skin Sensitization: | Not a skin sensitizers, corrosive. | | |

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

| | |
|--------------------------------|---|
| Tetra potassium Pyrophosphate: | <p>The dry material may cause foreign body irritation in some individuals. Prolonged contact with the dry material may cause drying or chapping of skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration.</p> <p>Following repeated exposure (13 weeks) to this product in their food, kidney damage with changes in body weight, food consumption, clinical parameters and organ weights were reported at high dose levels in rats.</p> |
| Potassium Hydroxide: | <p>The compound is corrosive to skin and eyes, and is untested for animal sensitization. Toxic effects described in animals from short exposures by inhalation, ingestion, or skin contact include: corrosion of mucosal surfaces.</p> <p>No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards.</p> |
| Potassium Silicate: | <p>The compound is not a DOT skin corrosive. A 30% aqueous solution is an eye irritant, but the powder is an eye corrosive. The compound is untested for animal sensitization.</p> <p>The effects in animals from acute, subchronic or chronic exposures by inhalation or ingestion have not been determined.</p> <p>No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards.</p> |
| Lauryl Dimethyl Amine Oxide: | <p>Not a corrosive. Moderate to severe irritant under conditions of test. Not a mutagen. Cell transformation was not induced. No indication of carcinogenic potential under study conditions.</p> |
| Sodium Polyacrylate: | <p>No significant effects in rats or dogs fed with resin as 5% of diet for 6 ½ months. No evidence of irritation or sensitization during human patch testing.</p> |
| Sodium Hypochlorite: | <p>The concentrated solution is corrosive to the skin, and a 5% solution is a severe eye irritant, but the compound is untested for animal sensitization. Solutions containing more than 5% available chlorine are classified as DOT corrosive.</p> <p>Ingestion: Toxicity described in animals from single exposures include muscular weakness and hypoactivity. Repeated exposure in animals caused an increase in the relative weight of adrenal glands in one study, but no pathological changes were observed in two other studies. Long-term administration of the compound in drinking water of rats caused depression of the immune system.</p> <p>Skin: No adverse changes were observed in an eight week dermal study of a 1% solution in guinea pigs.</p> <p>Tests in animals demonstrate no carcinogenic activity by either the oral or dermal routes. Tests in bacterial and mammalian cell cultures demonstrate mutagenic activity. No animal test reports are available to define developmental or reproductive hazards.</p> |

Reproductive/Developmental Effects

Not Available

Chronic/Subchronic Toxicity Studies

Not Available.

Carcinogenicity

Unlikely to be carcinogenic.

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

Other Toxicity Information

Systemically toxic concentrations of this product will probably not be absorbed through human skin.
No toxic effects are known to be associated with inhalation of dust from this material.
No irritation is likely to develop following contact with human eyes.
Irritation will probably not develop following contact with human skin.

Toxicity of Other Components

Not Applicable

Target Organs

Active Ingredients

Not Applicable

Inactive Ingredients

Not Applicable

12. ECOLOGICAL INFORMATION

Do not discharge effluent containing this product directly to water. Do not contaminate water when disposing of equipment wash water.

Eco-Acute Toxicity

| | | | |
|-----------------------------------|-----------------|--------------------------|-----------|
| Potassium Hydroxide: | Mosquito Fish | 96-hour EC ₅₀ | 80-85mg/L |
| Tetra potassium Pyrophosphate: | Mysid Shrimp | 96-hour EC ₅₀ | >100 mg/L |
| | Rainbow Trout | 96-hour EC ₅₀ | >100 mg/L |
| | Daphnia Magna | 48-hour EC ₅₀ | >100 mg/L |
| Sodium Hypochlorite: | Fathead Minnows | 96-hour EC ₅₀ | 5.9 mg/L |

13. DISPOSAL CONSIDERATIONS

Disposal: Do not reuse empty container except for holding additional product.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

| | |
|-----------------------|--|
| Proper Shipping Name: | Corrosive liquid, Basic, Inorganic, N.O.S. (Potassium Hydroxide) |
| Hazard Class: | 8 |
| UN Number: | 3266 |
| Packing Group: | III |
| Label: | Corrosive |
| Special Instructions: | Consumer Commodity, OMR-D for packages 1 gallon or less |

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

IMDG Classification

Proper Shipping Name: Corrosive liquid, Basic, Inorganic, N.O.S. (Potassium Hydroxide)
Hazard Class: 8
UN Number: 3266
Packing Group: III
Label: Corrosive
Special Instructions: Not Applicable

IATA Classification

Proper Shipping Name: Corrosive liquid, Basic, Inorganic, N.O.S. (Potassium Hydroxide)
Hazard Class: 8
UN Number: 3266
Packing Group: III
Label: Corrosive
Special Instructions: Not Applicable

Canadian Classification

Proper Shipping Name: Corrosive liquid, Basic, Inorganic, N.O.S. (Potassium Hydroxide)
Hazard Class: 8
UN Number: 3266
Packing Group: III
Label: Corrosive
Special Instructions: Not Applicable

15. REGULATORY INFORMATION

Pesticide Registration

This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

Caution: Harmful if swallowed or absorbed through skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing. All handlers (including applicators) must wear shoes plus socks, and gloves. Any person who retrieves carcasses or unused bait following application of this product must wear waterproof gloves.

Registration Number : Not Required

EPA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65 : Not Applicable

CERLA/SARA 302 Reportable Quantity (RQ) : None

RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable

TSCA Status: Exempt from TSCA, subject to FIFRA

SAFETY DATA SHEET

Product Name: BioSentry® Chlor-A-Foam™
Issue Date: June 1st, 2015
Replaces: New Issue
SDS Number: HAC0013 - CAN

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 3
Flammability: 0
Instability: 1

HMIS Hazard Ratings

Health: 3
Flammability: 0
Reactivity: 1
Other: H

0 - Minimal
1 - Slight
2 - Moderate
3 - Serious
4 - Extreme
* - Chronic

For Non-Emergency Questions About This Product Call:

1-800-621-8829

Neogen Corporation
Lexington, KY

BioSentry® is a Registered Trademark of BioSentry, Inc.; Used Under Exclusive License by Neogen Corporation.
Chlor-A-Foam™ is a Trademark of Neogen Corporation

ALTHOUGH THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN (HEREINAFTER "INFORMATION") ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT, HACCO, INC., THE MANUFACTURER OR THE SELLER MAKES NO REPRESENTATIONS AS TO THE COMPLETENESS OR ACCURACY THEREOF. INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING IT WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR PURPOSES PRIOR TO USE.

THE PRODUCT COVERED BY THIS INFORMATION SHEET IS FURNISHED "AS IS" BY HACCO, INC., THE MANUFACTURER OR THE SELLER, AND IS SUBJECT ONLY TO THE WARRANTIES, IF ANY, THAT APPEAR ON THE PRODUCT'S LABEL OR ARE OTHERWISE EXPRESSLY PROVIDED HEREIN.

EXCEPT AS EXPRESSLY PROVIDED ON THE PRODUCT'S LABEL OR OTHERWISE PROVIDED HEREIN, NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, ARE MADE BY HACCO, INC., THE MANUFACTURER OR THE SELLER WITH REGARD TO THE PRODUCT OR USE OF THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE.

EXCEPT AS EXPRESSLY STATED HEREIN, HACCO, INC., THE MANUFACTURER OR THE SELLER MAKES NO WARRANTY OF RESULTS TO BE OBTAINED BY USE OF THE PRODUCT COVERED BY THIS INFORMATION. BUYER'S OR USER'S EXCLUSIVE REMEDY, AND THE TOTAL LIABILITY OF HACCO, INC., THE MANUFACTURER OR THE SELLER, SHALL BE LIMITED TO DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT. NO AGENT OR EMPLOYEE OF HACCO, INC., THE MANUFACTURER OR THE SELLER IS AUTHORIZED TO AMEND THE TERMS OF THIS WARRANTY DISCLAIMER OR THE PRODUCT'S LABEL OR TO MAKE A REPRESENTATION OR RECOMMENDATION DIFFERENT FROM OR INCONSISTENT WITH THE LABEL OF THIS PRODUCT.

IN NO EVENT SHALL HACCO, INC., THE MANUFACTURER OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES AND THE BUYER AND USER WAIVE ANY RIGHT THEY MAY HAVE TO SUCH DAMAGES.