

Hacco, Inc.
110 Hopkins Drive
Randolph, WI 53956
(920) 326-2461
(Regulatory Office)
(920) 326-5141
(Manufacturing Location)

In Case of Emergency, Call:
1-800-498-5743 (U.S. Medical Emergency)
1-651-523-0318 (International, Medical Emergency)
1-800-424-9300 (U.S. CHEMTREC)
1-703-527-3887 (International, CHEMTREC)
(collect calls will be accepted on all lines)

1. PRODUCT IDENTIFICATION

Product Name: **BioSentry[®] Acid Tray Wash**
Signal Word: **DANGER**
Chemical Name: Not Applicable
Chemical Class: Acidic Cleanser
Registration Number:

Section(s) Revised: New Issue

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen	Percentage By Weight
Phosphoric Acid (CAS No. 7664-38-2)	1 mg/m ³ (8-hr TWA)	1 mg/m ³ (8-hr TWA) 3 mg/m ³ (STEL)	Not Established	No	44.99 %
Glycolic Acid (CAS No. 79-14-1)	Not Established	Not Established	Not Established	No	3.00 %

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

3. HAZARDS IDENTIFICATION

Health Effects

Eyes: This product may cause irritation with possible corrosion or ulceration.
Skin: This product may cause irritation with possible skin corrosion, burns or ulcers.
Inhalation: Inhalation of mist or vapor may cause irritation of the nose and throat with sneezing, sore throat, coughing, or runny nose.
Ingestion: This product may cause non-specific effects such as headache, nausea and weakness. Higher exposures may cause severe irritation of the throat and digestive tract with pain, nausea, vomiting, diarrhea or internal bleeding. Gross overexposure may be fatal.

Physical Properties

Appearance: Clear, red liquid
Odor: Musty

Unusual Fire, Explosion, and Reactivity Hazards

None known.

4. FIRST AID MEASURES

Have the product container, label, or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment. **FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL 1-800-498-5743 (U.S. Medical Emergencies) or 1-651-523-0318 (International Medical Emergencies, Collect Calls will be accepted).**

- Ingestion:** Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting. Immediately give 2 glasses of water. Do not give anything by mouth to an unconscious person.
- Eye Contact:** 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 a poison control center or doctor for treatment advice
- Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Wash contaminated clothing before reuse. Call a poison control center or doctor for treatment advice.
- Inhalation:** Move person to fresh air. If person is not breathing, call **911** or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible. If breathing is difficult, give oxygen. Call a poison control center or doctor for further treatment advice.

Notes to Physician

None.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

- Flash Point (Test Method): Not Applicable
- Flammable Limits (% in Air): Lower: % Not Applicable Upper: % Not Applicable
- Autoignition Temperature: Not Available
- Flammability: Not Flammable
- Extinguishing Media: Fog or Water Spray, Foam, Carbon Dioxide, Dry Chemical (appropriate for surrounding material)

Hazardous Decomposition Products:

Will not occur.

Unusual Fire, Explosion, and Reactivity Hazards

None known.

In Case of Fire

Evacuate personnel to a safe area. Wear self-contained breathing apparatus and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Wear appropriate personal protective equipment during cleanup.

Small Spills: Flush to sewer with large amounts of water.

Large Spills: Dike spill. Absorb into inert material (sawdust, sand, oil dry or other absorbent material) and place in plastic or plastic-lined containers for proper disposal.

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.

7. HANDLING AND STORAGE

Store the material in original container, in a secure area out of reach of children and domestic animals. Keep container tightly closed. Avoid inhalation. Avoid contact with eyes, skin, or clothing. 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. Wash clothing after use.

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.

- 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: Wear safety glasses. Where splash potential exists, wear chemical splash goggles.
- Skin Contact: Where there is a potential for skin contact have available and wear as appropriate impervious gloves, apron, pants and jacket.
- Inhalation: Use only with adequate ventilation. Wear a NIOSH/MSHA-approved pesticide respirator with an organic vapor cartridge and pesticide pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, red liquid
Odor:	Musty
Boiling Point:	>100° C
Specific Gravity:	1.21 g/ml (water=1)
Bulk Density:	9.43 – 10.26 lbs/gal
pH:	1 - 2
Solubility in H ₂ O:	Soluble
Vapor Pressure:	Not Established
Percent Volatile:	65% (by volume)
Evaporation Rate:	1 (water=1)

Note: The physical data presented here are typical values based on material tested, but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	Incompatible with alkalis, chlorinated compounds and bleach.
Hazardous Decomposition Products:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies

Ingestion:	<u>Acute Toxicity</u>	
	Oral (LD ₅₀ Rat) :	3,500 mg/kg (85% purity, Phosphoric Acid)
	Oral (LD ₅₀ Rat) :	1,530 mg/kg (100% purity, Phosphoric Acid)
Dermal:	<u>Acute Dermal Effects</u>	
	Oral (LD ₅₀ Rat) :	1,938 mg/kg (Glycolic Acid)
	Dermal (LD ₅₀ Rabbit) :	>1,260 mg/kg (85% purity, Phosphoric Acid)
Inhalation:	Dermal (LD ₅₀ Rabbit) :	2,740 mg/kg (100% purity, Phosphoric Acid)
	<u>Acute Inhalation Effects</u>	
	Inhalation (LC ₅₀ Rat, 1hr) :	>850 mg/m ³ (Phosphoric Acid)
	Inhalation (LC ₅₀ Rat, 4 hr) :	3.6 mg/L (Male Rats, Glycolic Acid)
	Inhalation (LC ₅₀ Rat, 4 hr) :	>5.2 mg/L (Female Rats, Glycolic Acid)

Phosphoric Acid: Animal testing indicates that Phosphoric Acid is corrosive to the eye and skin. It has not been tested for skin sensitization.

Single exposure by ingestion to high doses of Phosphoric Acid caused gastrointestinal irritation and hemorrhage.

No animal data are available to define the carcinogenicity, developmental or reproductive hazards of Phosphoric Acid. Phosphoric Acid has not produced genetic toxicity in mammalian cell cultures or in animals.

Glycolic Acid: 70% Glycolic Acid is a skin and eye corrosive. Glycolic Acid is not a skin sensitizer in animals. Toxic effects described in animals from single exposure to Glycolic Acid by inhalation include body weight losses and ocular and nasal discharges. Histopathological changes observed include laryngeal ulceration, nasal lesions, and lung inflammation. Repeated exposures produced liver, spleen, thymus, and gastrointestinal tract effects. Administration of single high oral doses of Glycolic Acid produced gastrointestinal tract irritation, liver damage, increased kidney weights and the formation of calcium oxalate crystals in the kidneys. Repeated oral doses in cats produced mortality, weight and appetite loss, depression, vomiting, coma, convulsions, and kidney failure.

Dogs given similar and higher doses exhibited no toxic effects. Repeated oral dosing in rats resulted in excessive mortality, decreased body weight and hematologic and clinical chemistry changes. The primary target organ of toxicity was the kidney. Both organ weight and microscopic changes were seen in kidneys of male rats. No systemic toxicity occurred in female rats. There was no evidence of neurotoxic or immunologic effects with Glycolic Acid from this test.

No animal test reports are available to define carcinogenic hazards. At high dietary levels in animals, developmental toxicity occurred only at exposure levels producing other toxic effects in the adult animal. Glycolic Acid is not considered a unique developmental hazard to the conceptus. The compound does not produce genetic damage in bacterial cell cultures. It has not produced genetic damage in tests on animals. There was no evidence of reproductive effects in rats.

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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

Phosphoric Acid:	Mosquito Fish, 96-hr TLm:	138 mg/L
Glycolic Acid:	Bluegill Sunfish 24-48-hr LC ₅₀ :	93 mg/L
	Fathead Minnows, 96-hr LC ₅₀ :	164 mg/L
	Daphnia Magna, 48-hour EC ₅₀ :	141 mg/L
	Freshwater Algae, 72-hr EC ₅₀ :	21.6 mg/L

13. DISPOSAL CONSIDERATIONS

Container Disposal

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

For containers 1 gallon or less: Do not reuse empty container (bottle, can, bucket). Wrap container and put in trash.

Pesticide Disposal

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

14. TRANSPORT INFORMATION

DOT Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: Not Applicable

DOT Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Consumer Commodity
Hazard Class: ORM-D
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: Not Applicable

IMDG Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: Not Applicable

IMDG Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8, ORM-D
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: May be shipped as a Consumer Commodity in Limited Quantities

IATA Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: Not Applicable

IATA Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8, ORM-D
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: May be shipped as a Consumer Commodity in Limited Quantities

Canadian Classification (for container sizes 20 – 200 liter)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: Not Applicable

Canadian Classification (for container sizes 4x1 gallon)

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Phosphoric Acid)
Hazard Class: 8, ORM-D
UN Number: 3264
Packing Group: III
Label: Class E, Corrosive Metal, Corrosive
Special Instructions: May be shipped as a Consumer Commodity as per Section 1.17 of TDG.

15. REGULATORY INFORMATION

EPA SARA Title III Hazard Classification

Immediate	<u>Y</u>	Fire	<u>N</u>	Sudden Release of Pressure	<u>N</u>
Delayed	<u>N</u>	Reactive	<u>N</u>		

Section 313 Toxic Chemicals

Not Listed

California Proposition 65

Not Listed

CERCLA/SARA 302 Reportable Quantity (RQ)

Not Listed

RCRA Hazardous Waste Classification (40 CFR 261)

Not Listed

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 0
Instability: 1

HMIS Hazard Ratings

Health: 2
Flammability: 0
Reactivity: 1
PPE: H

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

For Non-Emergency Questions About This Product Call:

1-800-621-8829

Neogen Corporation

Lexington, KY

www.Hacco.com

Original Issue Date: March 2nd, 2009
Revision Date: Not Applicable
Replaces: Not Applicable

BioSentry[®] is a Registered 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.