



PURITAN PRODUCTS

Effective Date: 08/30/16

Replaces Revision: 07/01/13, 02/24/11

NON-EMERGENCY TELEPHONE
610-866-4225

24-HOUR CHEMTREC EMERGENCY TELEPHONE
800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: BUFFER SOLUTION (BIPHTHALATE) pH4

Synonyms: None

Chemical Formula: Not applicable to mixtures

Recommended Use of the Chemical and Restrictions On Use: Laboratory Reagent

Manufacturer / Supplier: Puritan Products; 2290 Avenue A, Bethlehem, PA 18017 **Phone:** 610-866-4225

Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Acute toxicity - Gases (Category 4)

Skin corrosion / Irritation (Category 1) – for concentrated HCl

Serious eye damage / Eye irritation (Category 1) – for concentrated HCl

Specific target organ systemic toxicity (single exposure) (Category 3) – for concentrated HCl

Acute aquatic toxicity (Category 3) – for concentrated Dovicide®

Risk and Safety Phrases:

R22: Harmful if swallowed.

R34: Causes burns. (Concentrated HCl)

R37: Irritating to respiratory system.

R38: Irritating to skin.

R41: Risk of serious damage to eyes. (Concentrated HCl)

R51: Toxic to aquatic organisms. (Concentrated Dovicide®)

Label Elements:

Trade Name: BUFFER SOLUTION (BIPHTHALATE) pH4

Signal Word: Danger



Hazard Statements:

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H335 + H336: May cause respiratory irritation. May cause drowsiness or dizziness.

H400: Very toxic to aquatic life.

Precautionary Statements:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P360: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

3. Composition / Information on Ingredients

CAS Number: Not applicable to mixtures

EC Number: Not applicable to mixtures

Index Number: Not applicable to mixtures

Molecular Weight: Not applicable to mixtures

Ingredient	CAS Number	EC Number	Percent	Hazardous	Chemical Characterization
Potassium Acid Phthalate	877-24-7	212-889-4	1 - 2%	No	Substance
Dowicide® Dow Chemical	132-27-4	205-055-6	< 1%	Yes	Substance
Hydrogen Chloride	7647-01-0	231-595-7	< 1%	Yes	Substance
Water	7732-18-5	231-791-2	95 - 99%	No	Mixture

4. First-aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical if any breathing difficulty.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.

5. Fire-fighting Measures

Fire: Not expected to be a fire hazard.

Explosion: No information found.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving Hydrochloric Acid. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Contain and recover liquid when possible. Do not let product enter drains. Neutralize with alkaline material (soda ash, lime,) then absorb with an inert material (e.g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Personal Respirators (NIOSH Approved): Not expected to require personal respirator usage.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: Odorless

Odor Threshold: Not determined

pH: 4.0

% Volatiles by volume @ 21C (70F): ca. 98

Melting Point: No information found.

Boiling Point / Boiling Range: No information found

Flash Point: Not applicable

Evaporation Rate (BuAC=1): No information found

Flammability: Not applicable

Upper / Lower Flammability or Explosive Limits: Not applicable

Vapor Pressure (mm Hg): No information found

Vapor Density (Air=1): No information found

Relative Density: No information found

Solubility: Completely soluble in water

Partition Coefficient: n-octanol / water: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No information found

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Stable under ordinary conditions of use and storage.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, incompatibles.

Incompatible Materials: A strong mineral acid, concentrated Hydrochloric Acid is highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and Formaldehyde.

Hazardous Decomposition Products: When heated to decomposition, HCl will emit toxic Hydrogen Chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive Hydrogen gas.

11. Toxicological Information

Emergency Overview: CAUTION! MAY CAUSE IRRITATION TO SKIN AND EYES.

Potential Health Effects:

Inhalation: Not expected to be an inhalation hazard. May cause irritation to respiratory tract because of slight acidity. Symptoms may include coughing and sore throat.

Ingestion: Large doses may produce nausea, vomiting, and abnormal sensations in hands and feet. Because of slight acidity, causes irritation to the mucous membranes.

Skin Contact: Contact may cause irritation, with redness and pain.

Eye Contact: May cause eye irritation.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Potassium Acid Phthalate (877-24-7)	No	No	None
Dowicide® (132-27-4)	No	No	2B
Hydrogen Chloride (7647-01-0)	No	No	3
Water (7732-18-5)	No	No	None

Acute Toxicity:

No LD50/LC50 information found relating to normal routes of occupational exposure.

12. Ecological Information

Ecotoxicity: Ecotoxicity is not known other than that concentrated Dowicide® is toxic to aquatic organisms (reference Section 2 of this SDS.)

Persistence and Degradability: No further relevant information available.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Other adverse effects: US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Not regulated

Maritime Transport IMDG/GGVSea

Not regulated

Air Transport ICAO-TI and IATA-DGR

Not regulated

15. Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Potassium Acid Phthalate (877-24-7)	Yes	Yes	Yes	Yes
Dowicide® (132-27-4)	Yes	Yes	Yes	Yes
Hydrogen Chloride (7647-01-0)	Yes	Yes	Yes	Yes
Water (7732-18-5)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Potassium Acid Phthalate (877-24-7)	Yes	Yes	No	Yes
Dowicide® (132-27-4)	Yes	Yes	No	Yes
Hydrogen Chloride (7647-01-0)	Yes	Yes	No	Yes
Water (7732-18-5)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List Chemical	Catg.
Potassium Acid Phthalate (877-24-7)	No	No	No	No
Dowicide® (132-27-4)	No	No	No	No
Hydrogen Chloride (7647-01-0)	5000	500	Yes	No
Water (7732-18-5)	No	No	No	No

Federal, State & International Regulations - Part 2

Ingredient	RCRA		TSCA	
	CERCLA	261.33	8(d)	
Potassium Acid Phthalate (877-24-7)	No	No	No	
Dowicide® (132-27-4)	No	No	No	
Hydrogen Chloride (7647-01-0)	5000	No	No	
Water (7732-18-5)	No	No	No	

Chemical Weapons Convention: No		TSCA 12(b): No		CDTA: No	
SARA 311/312:	Acute: Yes	Chronic: No	Fire: No	Pressure: No	
Reactivity: No		Mixture / Liquid			

Australian Hazchem Code: None allocated

Poison Schedule: None allocated

16. Other Information

Revision 08/30/16 – modified Effective Date

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