

SAFETY DATA SHEET

1. IDENTIFICATION

1.1. Substance:	Bio pH HWF DP 1129
1.2. Use:	Sanitising and adjusting pH of poultry drinking water
1.3. Supplier:	BIOLINK LIMITED HALIFAX WAY POCKLINGTON INDUSTRIAL ESTATE POCKLINGTON YORK YO42 1NR ENGLAND
Emergency telephone:	01759 303444 (office hours only)
Fax:	01759 303158
e-mail:	paul@biolinklimited.co.uk (technical) info@biolinklimited.co.uk (sales)

2. HAZARDS IDENTIFICATION

Classification:	CORROSIVE & DANGEROUS FOR THE ENVIRONMENT.
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Adverse effects and symptoms relating to use and misuse.

Physicochemical	Corrosive liquid. Miscible with water.
Human health	Causes burns, harmful if swallowed, risk of serious damage to eyes.
Environmental	Dangerous for the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Cas No.	Classification	Content	Risks
Formic acid 85%	200-579-1	64-18-6	Corrosive	>65%, <75%	R34
Benzyl Alkonium Chloride 50%	269-919-4	68391-01-5	Corrosive/ Dangerous for the environment	>3%, <7%	R21/22, R34, R50
Copper sulphate	231-847-6	7758-98-7	Harmful/ Dangerous for the environment	>1%, <2%	R22, R36/38, R50/53

4. FIRST AID MEASURES

Immediate medical attention is required in the event of ingestion or eye contact.
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Inhalation:	Remove to fresh air, keep warm and seek medical advice/assistance if any symptoms persist.
Skin contact:	Remove any contaminated clothing and flush with copious amounts of water and seek medical advice/assistance if any symptoms persist. .
Eye contact	Flush eyes with copious amounts of water/eye wash and seek medical advice immediately.
Ingestion:	If swallowed wash out mouth with water provided person is conscious. Give water to drink, do not induce vomiting and seek medical advice immediately. Show the label.

Are any specific first aid means or equipment required at the workplace? Yes, Eyewash.

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5. FIRE-FIGHTING MEASURES

General:	This product is not flammable
Suitable extinguishing media:	Fine Spray, Foam, Dry Agent, CO ₂ according to the requirements of the surrounding materials.
Special exposure hazards:	Combustion products: Nitrogen Oxides (NO _x), Hydrogen Chloride and Oxides of Carbon.
Special protective equipment for firefighters:	<u>Breathing Apparatus.</u> Fire Kit. (Water and other fire fighting media should be prevented from entering the aquatic environment)

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid skin/eye contact. Do not drink. Spills may prove slippery, proceed with caution.
Environmental precautions:	Keep away from water courses and ground water.
Clean up methods:	For large spills contain with inert absorbent material and recover into sealed containers. For small spills mop up with absorbent materials. In both cases dispose of according to national/local regulations for hazardous waste.

7. HANDLING AND STORAGE

Handling:	Wear appropriate personal protective equipment.
Storage:	Keep from heat, sparks and open flames. Keep in suitable closed containers in a well ventilated environment. Protect from frost.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Values:	<u>Formic acid:</u> OES: 5ppm(9mg/m ³) 8h TWA –EH40 <u>Benzyl alkonium chloride:</u> OEL: Does not contain any relevant quantities of materials with critical values that have to be monitored in the workplace. <u>Copper sulphate:</u> TLV-TWA 1mg/ m ³
Occupational exposure controls:	General: Do not expose users to fumes/vapour. Do not ingest. Respiratory protection: Filtration for organic gases and vapours. Hand protection: Nitrile or PVC. Eye protection: Safety glasses, goggles or full face. Skin protection: PVC apron or suit
Environmental Exposure Controls:	Do not feed or bleed into water courses; harmful to fish and other aquatic organisms.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear blue liquid	RD:	1.1 – 1.2
Odour:	Strong formic acid	Water solubility:	Miscible
pH:	2.5 – 3.5	Oxidising:	No.
Flammability:	Not flammable	Foaming:	No

10. STABILITY AND REACTIVITY

Condition to avoid:	Product is stable at room temperatures. Avoid high temperatures.
Materials to avoid:	Alkalis, oxidising agents and anionic compounds.
Hazardous decomposition products:	None under normal conditions of storage and use. (See Section 5 for thermal decomposition products.)

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11. TOXOLOGICAL INFORMATION

Effects:	<u>Formic acid:</u> LD ₅₀ 1100-1850 mg/kg [Oral Rat] <u>Benzyl alkonium chloride:</u> LD ₅₀ : 795 mg/kg [Oral – Rat] LD ₅₀ : 1560 mg/kg [Dermal – Rat] <u>Copper sulphate:</u> LD ₅₀ >1000 mg/kg [Dermal Rabbit] LD ₅₀ 750-1000 mg/kg [Oral Rat]
Routes of exposure:	Inhalation. Ingestion. Skin contact. Eye contact.
CMR Effects:	<u>Formic acid: Copper sulphate:</u> Neither carcinogenic, mutagenic nor teratogenic <u>Benzyl alkonium chloride:</u> Carcinogenicity: Not tested. Mutagenicity: Not tested. Toxicity for reproduction: Not tested.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	<u>Formic acid:</u> The product is non volatile and water soluble and will partition to the aqueous phase. It will leach into soil. <u>Benzyl alkonium chloride:</u> EC ₅₀ : 0.03 mg/litre, 48hrs [Daphnia] IC ₅₀ : 0.6 mg/litre, 72hrs [Selanestrum capricornutum] LC ₅₀ : 1.7 mg/litre, 96hrs [Rainbow trout] EC ₁₀ : 4mg/litre [Activated sludge] EC ₂₀ : 10mg/litre, 0.5hrs [Activated sludge] <u>Copper sulphate:</u> Toxic to fish. (Product is toxic to fish and other aquatic organisms. Toxic effects on activated sludge organisms are possible)
Mobility:	Transportation to groundwater and water courses: water soluble except for copper content.
Persistence and degradability:	<u>Formic acid:</u> Not persistent and rapidly degraded. <u>Benzyl alkonium chloride:</u> Log POW 0.5-1.58 Readily biodegradable. <u>Copper sulphate:</u> Not biodegradeable. Persistent.
Bioaccumulative potential:	<u>Formic acid:</u> Low potential. <u>Benzyl alkonium chloride:</u> Low potential. <u>Copper sulphate:</u> Can be bioaccumulative.

13. DISPOSAL CONSIDERATIONS

Residues:	Copper
Safe handling:	In sealed, correctly marked containers.
Appropriate methods of disposal:	According to all local regulations for hazardous waste.

14. TRANSPORT INFORMATION

Modal Regulations:	ADR/RID
UN Number:	1903
Class:	8

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Packing Group:	III
Proper Shipping Name:	UN 1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S., (CONTAINS BENZYL ALKONIUM CHLORIDE & ORGANIC ACID), 8, PGIII

15. REGULATORY INFORMATION

Health, Safety & Environmental information shown on the label according to 'Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4):	See para. 16 (below)
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16. OTHER INFORMATION

Classification:	Corrosive, Dangerous for the environment.
Symbol:	C, N
Risk Phrases:	R34 – Causes burns. R41 – Risk of serious damage to eyes. R22 – Harmful if swallowed. R 51 – Toxic to aquatic organisms.
Safety Phrases:	S (1/2) – Keep locked up and out of reach of children. S 36/37/39 – Wear suitable protective clothing, gloves and eye face protection. S 26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 28 – After contact with skin wash immediately with plenty of water. S 62 – If swallowed do not induce vomiting; seek medical advice immediately and show this container or label. S 45 – In case of accident, or if you feel unwell, seek medical advice immediately and show the label where possible. S 61 – Avoid release to the environment. Refer to safety data sheet.
Training advice:	All users/operatives should be fully familiarized with the contents of this SDS, with specific reference to the R & S phrases and sections 11, 12 & 13 above.
Sources of key data used in the compilation of this Safety Data Sheet.	Health, Safety & Environmental information shown on the label according to 'Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4). ADR/RID DIRECTIVE 98/8/EC Safety Data Sheets as supplied by the manufacturers of specific components.
Disclaimer:	<i>The information above is believed to be accurate and represents the best information currently available to us. However, we make no other warranty, express or implied, with respect to the merchantability/efficacy or to the properties, uses, methods of use, disposal, packaging and transportation of this product other than itemized in this Safety Data Sheet and assume no liability resulting from such. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event will Biolink Limited, nor its heirs or successors if any such, be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Biolink Limited has been advised of the possibility of such damages.</i>