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Document Control

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Category	Product specification
Document Title	MSDS Anolyte
Version	3.0 Approved S/R
Date	22 April 2005
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MATERIAL SAFETY DATA SHEET

PRODUCT : NEUTRAL ANOLYTE PRODUCED AT STRICTLY CONTROLLED PH 7.0.

Note that this only relates to anolyte produced by Hydrofem equipment at the quoted salt concentration.

SECTION I. PRODUCT IDENTITY

Chemical Name: Neutral Anolyte
Common name: Electrochemically activated water containing **0.2% NaCl**
Product Type: Aqueous dilute mixed oxidants

Composition

Ingredient	CAS-No	EINECS-NO	Wt/Vol %
Water			99.8%
Sodium chloride	7647-14-5	231-598-3	0.2%
After activation			200 ppm (0.02%) oxidants
Hypochlorous acid	7790-92-3	232-232-5	<158.2 ppm (0.01582%)
Hypochlorite ion	7681-52-9	231-668-3	<41.8 ppm (0.00418%)
Ozone	10028-15-6	233-069-2	<1.4 ppm (0.00014%)
Chlorine dioxide	10049-04-4	233-162-8	<2.5 ppm (0.00025%)
Chloric acid	7790-93-4	232-233-0	<1.5 ppm (0.00015%)
Chlorous acid			<3.0 ppm (0.0003%)

Chemical aspects: The short-lived mixed oxidants which are formed initially are in dynamic equilibrium and gradually revert to the initial ingredients after time. Figures shown are maximal.

Physical aspects: The formed substances are additionally in an electrochemically energised state which relaxes gradually over a period of 24-48 hours. The anolyte initially contains energised microbubbles formed at the electrode interface. These also dissipate over a period of 24-48 hours.

HYDROFEM Ltd Product Name: ANOLYTE

TYPICAL APPLICATION: Used as fast-acting and extremely high efficacy sporocidal disinfectant.

SECTION 2. PHYSICAL /CHEMICAL CHARACTERISTICS

Appearance: Homogeneous clear, liquid.
Boiling point: 100⁰C
Sp Gravity: 1.02 – 1.06g/ml
Odour: Mild ozonous/chlorinous odour
Taste: Mild saline
Chemical: pH =7.0 ±0.5
Oxidation Reduction Potential: ORP = +900 mV ±100mV
Solubility: As for water

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SECTION 3. FIRE HAZARD AND CONTROL

Flammability:	Not applicable
Flash point (°C):	Not applicable
Extinguishing media:	Not applicable
Special fire-fighting procedures:	Not applicable

SECTION 4. REACTIVITY DATA

Stability:	Neutral ANOLYTE is an aqueous solution containing three levels of activity:- (1) chemically metastable oxidants which lose activity immediately on encountering reactants or after approximately 48 hours on storage.. (2) Electrochemical energy which relaxes over 24-48 hours (3) Energised microbubbles which dissipate over 24 hours. No hazardous reactions are known when used for its intended purposes
Incompatibility (material to avoid):	Neutral ANOLYTE is reactive with acid and alkaline solutions as per water and likewise with hydrogen peroxide and ammonia.
Hazardous decomposition or by-products:	Neutral ANOLYTE deactivates to the quality of its starting source water plus its added Sodium Chloride of 2000 ppm.

SECTION 5. ENVIRONMENTAL CHARACTERISTICS

Degradability:	Shelf life up to 48 hours if stored between 5 and 35°C Neutral ANOLYTE deactivates to the quality of its starting source water plus its added Sodium Chloride of 2000 ppm
Hazards:	Neutral ANOLYTE, generated at pH 7.0 is non-hazardous to human and animal tissue.
Other effects:	Not applicable

SECTION 6. HEALTH HAZARD DATA

Acute oral toxicity:	None observed
Acute dermal irritation:	Non-irritating when concentrated ANOLYTE is applied
Acute eye irritation:	Non-irritating when concentrated ANOLYTE is applied
Inhalation:	Non-irritating when concentrated ANOLYTE is applied
Occupational exposure limits:	None

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Health hazards: There are no known health hazards from normal exposure

SECTION 7. EMERGENCY AND FIRST AID PROCEDURES

Signs and symptoms of poisoning:	Not applicable
First Aid procedures:	None specified
Skin contact:	No reports of adverse skin reactions after exposure
Eye contact:	No reports of adverse ocular reactions after exposure
Ingestion:	No reports of adverse reactions after ingestion
Inhalation:	No reports of adverse reactions after inhalation
Emergency antidote:	None

SECTION 8. MEDICAL ADVICE

Neutral ANOLYTE has been extensively tested in both humans and animals, and poses no threat to the welfare of the operator or test animal.

SECTION 9. PRECAUTIONS FOR SAFE HANDLING AND USE

Handling concentrated product:	None
Handling or applying diluted product:	None
Leaks and Spills:	Leaks and spills can be removed as for ordinary water.
Waste disposal:	Neutral ANOLYTE can be disposed of in municipal drains without adverse effects after use. Local environmental regulatory requirements should be followed, which may require ANOLYTE to be deactivated or neutralized by sodium sulphite, sodium thiosulphate or mixed with CATHOLYTE if still active.
Storage:	Optimal efficacy of the product will be prolonged if stored away from direct sunlight and in sealed opaque or tinted containers and avoiding high temperatures.
Other precautions:	None

FOR FURTHER INFORMATION REFER TO HYDROFEM LTD

DISCLAIMER: This information is based on our current knowledge and is intended to describe the product for the purposes of health and safety requirements only. It should not, therefore, in itself be construed as a guarantee of any specific quality relating to the product.

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