

Material Safety Data Sheet

**Micro-Clear
(Liquid)**

Cartier Environmental Services Inc.

November 30, 2011

1. Identification of the Substance/Preparation and Company/Undertaking.

NAME **MICRO-CLEAR (Liquid)**

Synonyms: Bacterial products.

Common uses: Pond and lagoon clarifier.

Supplied by: **Cartier Environmental Services Inc.**
90, 50512 Range Road 245 Leduc County, AB T4X 0P5
Tel: (780) 955-5520, Fax: (780) 955-0250

2. Composition/Information on Ingredients.

Contains: Bacterial Cultures 10%.
 Water = 89% {CAS: 7732-18-5}
 Preservative = < 1%

Hazardous ingredient /	% Conc.	Classification	Exposure	CAS	EINECS
impurity					
NONE					

3. Hazards Identification.

Classification: Bacterial culture non-pathogenic.

Irritating to skin, risk of serious damage to eyes.

4. First Aid Measures.

Immediate medical attention is required in case of exposure by inhalation, contact with skin or eyes, or if swallowed.

Exposure Route	Symptom	Treatment
Inhalation	Same as exposure to mist.	Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid or complete seek medical attention.
Skin Contact	Redness and irritation.	Drench the skin with plenty of water. Remove contaminated clothing and wash before reuse. If large areas of the skin are damaged or if irritation persists seek medical attention.
Eye Contact	Irritation.	Irrigate thoroughly with water for at least 10

							minutes. Obtain medical attention. Do not delay.
Ingestion							Irritation of gastrointestinal tract, nausea, diarrhea.
							Wash out mouth with water. Do not induce vomiting. If patient is conscious, give water to drink. If patient feels unwell seek medical attention.
Immediate Treatment / Antidote:							Symptomatic treatment.
Delayed Effects:							Bacterial infection.
5. Fire Fighting Measures.							
Suitable Extinguishers:							Water.
Hazardous Combustion Products:							None in normal use. Fire creates fumes including carbon dioxide and sulfur dioxide.
Special Equipment for Fire Fighting:							Self contained breathing apparatus.
6. Accidental Release Measures.							
Personal Precautions:							Wear appropriate PPE - See Section 8.
Environmental Precautions:							The bacteria and carriers are naturally occurring and should not pose an environmental risk.
Clean up Procedure:							Vacuum or sweep up avoiding generation of mist. Place in suitable labeled containers and hold for waste disposal. Wash spill site with water. If bacterial contamination is an issue use chlorine to kill the bacillus spores.

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7. Handling & Storage.			
Handling		Ventilation:	Good general ventilation.
		Recommended procedures & equipment:	avoid creating mist.
Storage		Temperature range:	0 deg C to 40 deg C for product viability only.
		Humidity range:	all.
Keep away from:			See Section 10.
Suitable storage Media:			Original container with closed lid.
Precautions against static discharge:			recommended.

1. Exposure Controls/Personal Protection. Exposure standards:

Component	LTEL (8h TWA) Type	STEL (15 mins)
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None

Personal Protective Equipment:

Respiratory: Dust mask.

Hand: Wash hands after use. Gloves recommended.

Eye: Safety glasses or goggles recommended.

Skin: Wash after exposure. Overalls and boots recommended.

Environmental Controls: Users should be aware of environmental considerations and their duties under the environmental protection act.

Hygiene Measures: Always wash thoroughly after handling chemicals.

9. Physical & Chemical Properties.

Appearance	Water like liquid, straw
Odor	Earthy
pH	Neutral 8.0
Boiling Point/range	Similar to water
Melting Point/range	Similar to water
Flash point	Not Applicable
Flammability	Not flammable under normal conditions of storage and handling.
Auto-ignition temperature	Not Applicable
Explosive limits	Not Applicable
Oxidizing Properties	None
Vapour Pressure	Similar to water
Relative density	1.01
Solubility in water	Soluble. Disperses in water.
Solubility in solvent	Not soluble
Partition coefficient	Not Applicable
Viscosity	Similar to water
Vapour density	Similar to water
Evaporation rate	Similar to water

Conductivity	Similar to water
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10. Stability & Reactivity.			
Stability:		Stable under normal storage and handling conditions.	
Conditions to avoid:		Accumulations of product in enclosed spaces and generation of mist. Avoid	
		contact with oxidizing chemicals.	
Materials to avoid:		Acids and Alkalies may inactivate the bacterial cultures.	
Hazardous decomposition products:		Oxides of carbon and sulfur.	

11. Toxicological Information.

Toxicological effects: Low Acute oral toxicity although ingestion will cause irritation of the gastrointestinal tract and may result in nausea and diarrhea. May cause mild mechanical irritation to eyes, skin and mucous membranes. May cause irritation from allergic reaction, especially to people that have a history of allergic reaction.

LD₅₀	Greater than 2000 mg/kg	oral-rat	skin-rabbit
12. Ecological Information.			
Environmental Effects:		Minimal impact under normal conditions of use and storage. The bacterial cultures are naturally occurring soil type organisms. The other components are unlikely to bio-accumulate and bio-degradable.	
Mobility:		Disperses in water.	
Degradability:		Contents are bio-degradable.	
Bio-accumulative potential:		Not likely.	
Aquatic Toxicity:		Not known.	

13. Disposal Considerations.

Substance: Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

Container:	As substance.
14. Transport Information.	Not regulated for transport.
UN number	Class
Primary Hazard	Subsidiary Hazard
Packing Group	Emergency Action Code
H.I. Number	Marine Pollutant
Proper Shipping name	Pond and lagoon clarifier, bacterial culture.
15. Regulatory Information.	
Label Name	MICRO-CLEAR (Liquid)
Symbols	no risk or safety phrases stipulated
Risk Phrases	no risk or safety phrases stipulated
Safety Phrases	no risk or safety phrases stipulated

E.C. No	N/A
Additional labeling:	

Use of this material may be governed by the following regulations: (users are advised to consult these regulations for further information).

The information contained in this data sheet does not constitute an assessment of workplace risks.

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16. Other Information.

This material must not be used for direct contact with food.

Further details may be available upon request from your local Cartier Environmental Services Inc. distribution site.

Other: The product has been shown to be free of Salmonella and Shigella (E. Coli) using the procedures outlined by AOAC and USDA.

17. Legal Disclaimer.

The above information in this MSDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, OR USE OF THIS PRODUCT.

Micro-Clear ~ Liquid (Pond Water Clarifier)

Micro-Clear is a bacterial liquid concentrate for use in controlling ammonia and nitrites through competition of available nutrients in the water. Because of the diversity of the microorganisms and enzymes, this product is excellent for increasing water clarity.

Micro-Clear enhances water clarity by providing good settling ability and restoring the aesthetic quality of the water bodies. The product is harmless to animal and plant life in the water and compatible with a natural ecological balance. The safe and naturally occurring bacteria are able to handle nitrite, ammonia and odour issues. Micro-Clear is best applied for aerated lagoons, fish hatcheries, aquaculture farms, golf course ponds, fountains and lakes.

Advantages of Micro-Clear include:

- Reduces odours
- Increases setting ability
- Environment friendly
- Restores water quality
- No hydrogen sulphide is produced
- Contains no chemicals
- Reduced available nutrients

The physical characteristics of Water-Clear are that it is in liquid form, with a neutral pH balance and an effective pH range of 6-9. A straw coloured liquid with a musty odour, it is available in various concentrations, including Micro-Clear (20X) -2 Trillion CFU / gallon.

