

## Material Safety Data Sheet

### *AquaPill: Clarifier Plus*

#### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Manufacturer's Name:** HaloSource, Inc.  
**Corporate Address:** 1631 220<sup>th</sup> St. SE, Suite 100, Bothell, WA 98021  
**Manufacturer's Telephone:** (425) 881-6464 (Monday-Friday, 8AM-5PM PDT)  
**Emergency Telephone (24 Hours):** **800-424-9300 CHEMTREC (Domestic, North America)**  
**703-527-3887 CHEMTREC (International, collect calls accepted)**

**Material/Trade/Product Name:** **AquaPill: Clarifier Plus**  
**Synonyms:** None  
**Chemical Name:** Chitosan Acetate Solution  
**Chemical Formula:** Not available  
**CAS No.:** Not applicable  
**EPA Registration #:** Not applicable  
**Product Use:** Clears cloudy water by binding tiny particles together so they can be trapped by the filter.

#### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	COMPONENT	%	OSHA HAZARDOUS?
	All components are non-hazardous.		NO

*NOTE: See Section 8 for permissible exposure limits.*

#### SECTION 3: HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

Red viscous liquid with a pungent vinegar odor.

May be mildly irritating to eyes. Not likely to be hazardous to skin, respiratory tract, or by ingestion.

##### POTENTIAL HEALTH EFFECTS

**EYE:** May be mildly irritating to eyes.

**SKIN:** Not hazardous to skin.

**INHALATION:** Not likely to be hazardous by inhalation.

**INGESTION:** Not likely to be hazardous by ingestion.

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

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** Eye irritation.

**AGGRAVATION OF PRE-EXISTING CONDITIONS:** None known.

**POTENTIAL ENVIRONMENTAL EFFECTS:** Material is 100% biodegradable and nontoxic.

## **SECTION 4: FIRST AID MEASURES**

### **FIRST AID PROCEDURES**

**EYE CONTACT:** Remove contact lenses (if applicable), flush with water for 15 minutes. Call a physician.

**SKIN CONTACT:** Cleansing the skin after exposure is advisable.

**INHALATION:** If large amounts of fumes are inhaled, remove to fresh air and consult a physician.

**INGESTION:** Consult a physician if necessary.

**NOTE TO PHYSICIANS:** None.

## **SECTION 5: FIRE FIGHTING MEASURES**

**FLASH POINT:** Not available

**UPPER FLAMMABLE LIMIT:** Not available

**FLAMMABILITY CLASS (OSHA):** Not applicable

**AUTOIGNITION TEMPERATURE:** Not available

**LOWER FLAMMABLE LIMIT:** Not available

**FLAME PROPAGATION/BURNING RATE:** Not available

**UNIQUE FIRE PROPERTIES:** None known.

**HAZARDOUS COMBUSTION PRODUCTS:** None.

**EXTINGUISHING MEDIA:** Does not burn. Use water, dry chemicals, carbon dioxide, sand or foam. Use extinguishing media appropriate for surrounding fire.

**PROTECTION OF FIREFIGHTERS:** Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coat, gloves and rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Water may be used to keep fire-exposed containers cool until fire is out.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**PERSONAL PROTECTIVE EQUIPMENT:** See Section 8 (Personal Protective Equipment).

**ENVIRONMENTAL PRECAUTIONS:** Material is 100% biodegradable and nontoxic.

**METHODS FOR CLEANING UP:** Dilute with water and hose down.

## **SECTION 7: HANDLING AND STORAGE**

**SAFE HANDLING RECOMMENDATIONS**

**VENTILATION:** General ventilation should be sufficient under normal conditions.

**FIRE PREVENTION:** Non-flammable, no special fire protection required.

**SPECIAL HANDLING REQUIREMENTS:** Avoid eye contact.

**SAFE STORAGE RECOMMENDATIONS**

**CONTAINMENT:** The container should be kept covered to prevent contamination.

**STORAGE ROOM RECOMMENDATIONS:** Store in a cool, dry, well-ventilated area away from direct heat.

**INCOMPATIBLE MATERIALS:** Strong oxidizing material and strong bases.

**STORAGE CONDITIONS:** 10-50°C recommended (will freeze @ ~3°C). Shelf life is indefinite but viscosity will decrease over time.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** General ventilation should be sufficient under normal conditions.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**EYE/FACE PROTECTION:** Safety glasses recommended.

**SKIN PROTECTION:** For operations where skin contact can occur, wear impervious clothing such as apron, boots, or whole bodysuit.

**HAND PROTECTION:** For operations where hand contact can occur, rubber gloves recommended.

**RESPIRATORY PROTECTION:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Respirator use is not required for this product.

**GOOD HYGIENE/WORK PRACTICES:** Always follow good hygiene/work practices by avoiding vapors or mists and contact with eyes and skin. Thoroughly wash hands after handling and before eating or drinking. Always wear the appropriate PPE when repairing or performing maintenance on contaminated equipment.

**EXPOSURE GUIDELINES**

PERMISSIBLE EXPOSURE LIMITS						
INGREDIENT CAS NO.	OSHA		WISHA		ACGIH (TLV)	
	TWA	STEL	TWA	STEL	TWA	STEL
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**COLOR:** Red

**PHYSICAL FORM:** Viscous liquid

**SHAPE:** Viscous liquid

**ODOR:** Pungent vinegar odor

**pH:** 3.0-4.5

**VAPOR DENSITY:** Not available

**MELTING POINT:** Not available

**SOLUBILITY IN WATER:** Soluble

**VAPOR PRESSURE:** Not available

**BOILING POINT:** 211°F

**FREEZING POINT:** Not available

**SPECIFIC GRAVITY OR DENSITY:** 1.0-1.1 g/mL

*NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Values should not be construed as a guaranteed analysis of any specific lot or as specifications.*

## SECTION 10: STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable.

**CONDITIONS TO AVOID:** Freezing temperatures or excess heat (for quality purposes).

**MATERIALS TO AVOID (INCOMPATIBILITY):** Strong oxidizing material and strong bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposition will not occur.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

**ORAL LD<sub>50</sub> (rat):** Not available.

**DERMAL LD<sub>50</sub> (rabbit):** Not available.

**SKIN IRRITATION:** Not available.

**EYE IRRITATION:** Not available.

**SKIN SENSITIZATION:** Not available.

**ADDITIONAL INFORMATION:**

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICITY (in water):

- Acute:
  - Daphnia LC 50 – 1369 mg/ L
  - Daphnia NOEC – 1000 mg/L
  - Fathead minnows LC 50 – 642 mg/L
  - Fathead minnows NOEC – 500 mg/L
  - Rainbow Trout LC 50 – 173mg/L
  - Rainbow Trout NOEC – 125 mg/L
- Chronic:
  - Rainbow Trout LC 50 – 154 mg /L
  - Rainbow Trout LC 25 – 121 mg/L
  - Fathead Minnow LC 50 - > 1000 mg/L
  - Fathead Minnow LC25 – 932 mg/L

**MOBILITY:** Not available.

**PERSISTENCE AND DEGRADABILITY:** Not available.

**BIOACCUMULATIVE POTENTIAL:** Not available.

**ADDITIONAL INFORMATION:** Not available.

### SECTION 13: DISPOSAL CONSIDERATIONS

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

*NOTE: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.*

### SECTION 14: TRANSPORT INFORMATION

#### U.S. DEPARTMENT OF TRANSPORTATION (DOT):

<b>Proper Shipping Name:</b>	Not Regulated
<b>Hazard Class:</b>	Not Regulated
<b>Identification Number (UN Number):</b>	Not Regulated
<b>Packing Group (PG):</b>	Not Regulated

### SECTION 15: REGULATORY INFORMATION

**TSCA STATUS:** The substances in this preparation are included on or exempted from the TSCA 8(b) inventory (40 CFR 710).

#### CERCLA REPORTABLE QUANTITY (RQ):

CHEMICAL NAME	RQ
Not applicable	Not applicable

#### SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (EHS):

CHEMICAL NAME	TPQ	RQ
Not applicable	Not applicable	Not applicable

**SARA TITLE III SECTION 311/312 HAZARD CATEGORIES:** Does this product/material meet the definition of the following hazard classes according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of SARA Title III?

ACUTE HEALTH HAZARD	CHRONIC HEALTH HAZARD	FIRE HAZARD	REACTIVE HAZARD	SUDDEN RELEASE OF PRESSURE
NO	NO	NO	NO	NO

#### SARA TITLE III SECTION 313 TOXIC CHEMICALS INFORMATION:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**CALIFORNIA PROPOSITION 65:** The following chemical(s) is/are known to the state of California to cause cancer or reproductive toxicity:

CHEMICAL NAME	CAS NO.	CONCENTRATION (%)
Not applicable	Not applicable	Not applicable

**SECTION 16: OTHER INFORMATION**

**REVISION INFORMATION:**

MSDS sections(s) changed since last revision of document:

- None, this is a new document.

**DISCLAIMER:**

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