



SAFETY DATA SHEET

Section 1 - Chemical Product and Company Information

Product Name: Aveho

Product Type: Odor Removal Technology

Emergency 24-hour Phone (English): CHEMTREC Number +(800) 424-9300

Company Information: UltraTech International, Inc.
11542 Davis Creek Court
Jacksonville, Florida 32256 USA

e-mail: info@avehotechnology.com

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Telephone: 877-422-8027 • 904-854-4428 (M-F 8:00 a.m. - 5:00 p.m. EST)

Fax: 904-292-1325

Section 2 - Hazards Identification

Physical	Health	Environmental
Not hazardous	Not hazardous	Not hazardous

This product is not hazardous in accordance with US OSHA 29CFR1910.1200 (Hazcom 2012), Canada Hazardous Products Regulations (WHMIS 2015), Regulation (EC) No. 1272/2008 (CLP) and the Globally Harmonized System (GHS).

Section 3 - Composition/Information on Ingredients

Chemical Name	CAS number / EINECS Number / REACH Reg. Number	% (w/w)	CLP/GHS Classification (1272/2008)
Copper Chloride	10125-13-0 / 231-210-2	<0.1%	Acute Toxicity Category 4 (H302, H312) Skin Irritation 2 (H315) Eye Damage Category 1 (H318) Aquatic Acute Toxicity Category 1 (H400) Aquatic Acute Toxicity Category 2 (H411)
Amorphous silica, colloidal nanoparticles	7631-86-9 / 231-545-4	<1%	Not classified as hazardous
Non-Hazardous Ingredients and ingredients below cut- off concentrations	Mixture	Balance	Not classified as hazardous



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Section 4 - First Aid Measures

Inhalation:	No first aid should be needed. If irritation occurs or symptoms develop, get medical attention
Skin Contact:	Wash skin with soap and water. If irritation develops and persists, get medical attention.
Eye Contact:	Immediately flush eyes with water while lifting the upper and lower lids. Get medical attention if irritation persists.
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to a person who is unconscious or convulsing. Get medical attention if symptoms develop
Symptoms:	May cause mild eye and skin irritation. Ingestion may cause gastrointestinal distress. Inhalation of mists may cause upper respiratory tract irritation.

Section 5 - Fire Fighting Measures

Extinguishing media:	Use any extinguishing media suitable for the surrounding fire.
Unusual fire or explosion hazards:	Product is not flammable or combustible. Thermal decomposition products that may develop after the water has evaporated may include copper oxides and chlorine compounds.
Special firefighting procedures:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for all fires involving chemicals. Cool fire exposed containers with water.

Section 6 - Accidental Release Measures

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.
Clean-up methods:	Contain and collect with an inert absorbent material. Place in an appropriate container for disposal. If product has dried, collect dry residue in a manner that minimizes the generation of dust.

Section 7 - Handling & Storage

Handling:	Avoid breathing spray mists. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling.
Storage:	Do not store below 40° F (5° C).
Specific Uses:	Industrial uses - Odor Elimination. Professional uses - Odor Elimination



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Section 8 - Exposure Controls/Personal Protection

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	US OEL	EU IOEL	German Limits	UK Limits
Copper Chloride (as Cu)	1 mg/m ³ TWA OSHA PEL/ ACGIH TLV	None Established	0.01 mg/m ³ (respirable) TWA 0.02 mg/m ³ (respirable) STEL	1 mg/m ³ TWA 2 mg/m ³ STEL
Amorphous silica, colloidal nanoparticles*	80 mg/%SiO ₂ TWA OSHA PEL	None Established	4 mg/m ³ (inhalable) TWA	6 mg/m ³ (inhalable), 2.4 mg/m ³ (respirable) TWA

* The exposure limits listed may not adequately protect workers from effects of exposure to nano-scale materials.

EXPOSURE CONTROLS:

Appropriate Engineering Controls:

Use with adequate general or local exhaust ventilation to minimize exposures levels.

Personal Protective Measures

Respiratory controls:

None needed under normal use conditions. If exposure levels are excessive and irritation is experienced, an approved particulate respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with local regulations and good Industrial Hygiene practice.

Skin protection:

Impervious gloves recommended if needed to avoid prolonged skin contact.

Eye/face protection:

Safety glasses or goggles recommended if needed to avoid eye contact.

Section 9 - Physical & Chemical Properties

Appearance (Physical state, Color, Etc.):	Blue liquid	Flammable limits: LEL:	None
Odor:	No odor	Auto-ignition temperature:	None
Odor threshold:	Not applicable	Evaporation rate:	Same as water
pH:	7-8	Solubility:	Soluble in water
Vapor pressure:	Same as water	Partition coefficient (n-octanol/water):	Not available
Relative density:	1.1 - 1.2	VOC content:	0%
Boiling point/range:	212°F (100°C)	Viscosity:	Same as water
Melting point/ range:	32°F (0°C)	Decomposition temperature:	Not available
Vapor density:	Same as water	Explosive Properties:	Not applicable
Flash point:	None	UEL:	None
Flammable (solid, gas):	Not applicable	Oxidizing Properties:	Not Oxidizing



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Section 10 - Stability & Reactivity

Stability:	Stable.
Hazardous reactions:	None known.
Hazardous decomposition products:	Thermal decomposition products that may develop after the water has evaporated may include copper oxides and chlorine compounds.
Incompatible materials:	None known.
Reactivity:	Not reactive.
Conditions to avoid:	Extreme heat; temperatures below 40° F (5° C)

Section 11 - Toxicological Information

Potential Health Effects/Symptoms

Inhalation:	Inhalation of aerosol may cause irritation to the upper respiratory tract. This product contains nanoparticles. The effects of inhaling nanoparticles has not been well studied. Avoid generating and inhaling airborne particulates in the form of dusts or mists.
Ingestion:	May cause mucous membrane and gastrointestinal irritation and other adverse effects.
Skin contact:	Prolonged skin contact may cause mild skin irritation.
Eye contact:	Contact may cause mild irritation with redness and tearing.
Chronic Effects:	Prolonged overexposure to copper may cause blood, liver and kidney damage. Prolonged overexposure to dust or mist of colloidal silica (synthetic amorphous silica) may cause lung damage (pneumoconiosis).
Sensitization:	Components are not known to be sensitizer.
Skin corrosion/irritation:	Inhalation of aerosol may cause irritation to the upper respiratory tract. This product contains nanoparticles. The effects of inhaling nanoparticles has not been well studied. Avoid generating and inhaling airborne particulates in the form of dusts or mists.
Eye damage/ irritation:	Copper chloride causes eye damage but the product is not classified based on the low concentration.
Respiratory Irritation:	No data available. Expected to cause only temporary irritation.
Respiratory Sensitization:	Components are not respiratory sensitizers.
Skin Sensitization:	None of the components have been shown to cause skin sensitization.
Germ Cell Mutagenicity:	Components are not germ cell mutagens.
Carcinogenicity:	None of the components of this product are listed as carcinogens by IARC, NTP, US OSHA or the EU CLP or classified as carcinogens under the GHS.
Reproductive Toxicity:	No adverse effects are expected. Components are not reproductive toxins.

Specific Target Organ Toxicity:

Single Exposure: No adverse effects are expected.

Repeat Exposure: No data available.

Acute Toxicity Values:

Copper chloride: LD50 oral rat 584 mg/kg, Dermal rat LD50 1224 mg/kg (read-across)



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Section 12 - Ecological Information

Toxicity: Copper Chloride: 96 hr LC50 Oncorhynchus mykiss 0.068-0.094 mg/L, 48 hr EC50 daphnia magna 0.0338 – 0.792 mg/L, 72 hr ErC50 Phaeodactylum tricornutum 0.0057 mg/L. Copper chloride is classified in category 1 for acute toxicity with a M factor of 10 and in category 2 of chronic toxicity.

Persistence and degradability: Biodegradation does not apply to inorganic substances.

Results of PBT and vPvB assessment: Components are not classified as PBT or vPvB.

Section 13 - Disposal Considerations

Recommended method of disposal: Dispose in accordance with all local and national regulations. No specific disposal method is recommended. It is the responsibility of the user, at the time of disposal, to determine whether the product meets the criteria for hazardous waste.

Section 14 - Transport Information

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT		Not Regulated			
Canadian TDG		Not Regulated			
EU ADR/RID		Not Regulated			
IMDG		Not Regulated			
IATA/ICAO		Not Regulated			

Section 15 - Regulatory Information

United States Regulatory Information

TSCA 8 (b) Inventory Status:

All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification:

None above reporting de minimis

CERCLA/SARA Section 302 EHS:

None.

CERCLA/SARA Section 311/312:

Not Hazardous.

CERCLA/SARA Section 313:

This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under the SARA Section 313 (40 CFR 372). Copper Compounds <0.1%

California Proposition 65:

This product does not contain chemicals listed per the Safe Drinking Water and Toxic Enforcement Act of 1986.



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California Proposition 65:

This product does not contain chemicals listed per the Safe Drinking Water and Toxic Enforcement Act of 1986.

International Regulations

Canadian Environmental Protection Act:

All of the components are listed on the Canadian Domestic Substances List.

European Union:

All of the components are listed on the European Inventory of New and Existing Chemical Substances (EINECS) inventory.

Australia:

All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances (AICS).

Korea:

All of the components of this product are listed on the Korean Existing Chemical List (KECL).

Japan:

All of the components of this product are listed on the Japanese Existing and New Chemical Substances List (ENCS).

New Zealand:

One or more of the components of this product are not listed on the New Zealand Inventory of Chemicals (NZIoC).

Philippines:

All of the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

Taiwan:

All the components are listed on the existing chemicals inventory.

Section 16 - Other Information

CLP/GHS Classification and H Phrases for Reference (See Section 3)

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

SDS Revision History: Changes to Sections 3, 8 and 11.

Date of SDS preparation: October 3, 2015

Date of previous revision: September 1, 2015

Further information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information this safety data sheet is believed to be accurate and is the best information available to UltraTech International, Inc. This document is intended only as a guide to the appropriate precautions to handling a chemical by a person trained in chemical handling. UltraTech International makes no warranty of merchantability and any other warranty, express or implied with respect to such information or the product to which it relates, and we assume no liability resulting from the use, misuse or handling of the product to which the safety data sheet relates. Users and handlers of this product should make their own investigations to determine the suitability of the information provided herein for their own purposes.