

Material Safety Data Sheet

CV600 Enzyme Water Cleaner

MSDS No. 600

Date of Preparation: July 2011

Revision: 0

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: CV-600 Enzyme Water Cleaner
Chemical Formula: Proprietary
CAS Number: N/A.
Other Designations: Mixed enzyme
General Use: Catalytic oxidation of water-born organic residues
Manufacturer: Orenda Technologies 760 River Oaks Circle, Fairview, TX 75069 Tele: 866-763-4269

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number
Proprietary Mixed Enzyme	N/A

Trace Impurities: << 0.1%

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Proprietary Mixed Enzymes	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Temporary, severe eye irritation, possible effects in blood and liver with substantial ingestion of as-received product.

Potential Health Effects

Primary Entry Routes: By ingestion and through skin and eye contact.
Target Organs: Blood and liver with substantial ingestion of as-received product.
Acute Effects
Inhalation: None.
Eye: Possible temporary irritation.
Skin: Possible mild irritant with drying/defatting.

HMIS
H 1
F 0
R 0

PPE[†]
[†]Sec. 8

Ingestion: With substantial ingestion of the as-received product, with possible gastrointestinal irritation.
Carcinogenicity: IARC, NTP, and OSHA do not list CV-700 as a carcinogen.
Medical Conditions Aggravated by Long-Term Exposure: None known.
Chronic Effects: There are no known chronic effects except as indicated above under Acute Effects.

Section 4 - First Aid Measures

Inhalation: In the improbable event of product inhalation, remove the affected individual to fresh air and provide fresh air or artificial respiration as required. Obtain medical attention.
Eye Contact: Flush thoroughly with water for five minutes and obtain medical attention if irritation of eye membranes persists.
Skin Contact: Wash contacted areas with soap and water, apply emollient skin cream to minimize dryness and seek medical attention if irritation persists..
Ingestion: Drink several glasses of water. Obtain medical attention.
After first aid, get appropriate in-plant, paramedic, or community medical support if exposure symptoms persist.
Note to Physicians: Under normal use and human exposure conditions, the product is considered nontoxic and nonhazardous.
Special Precautions/Procedures: None.

Section 5 - Fire-Fighting Measures

Flash Point: None.

Flash Point Method: N/A

Burning Rate: N/A

Autoignition Temperature: N/A

LEL: N/A

UEL: N/A

Flammability Classification: Nonflammable.

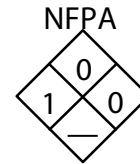
Extinguishing Media: N/A

Unusual Fire or Explosion Hazards: None.

Hazardous Combustion Products: Thermal oxidative decomposition of the product may release toxic fumes of hydrogen chloride, and oxides of carbon, nitrogen

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill Procedures:

Small & Large Spills

Containment: For all spills, pick up mechanically and place in suitable container for disposal. Do not release into sewers or waterways.

Cleanup: After product recovery and removal, flush spill area with water to a sanitary sewer.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Wear appropriate eye and glove protection to minimize personal exposure.

Storage Requirements: Do not store with oxidizing or acidic materials. Keep containers tightly sealed. Store at temperatures below 120°F.

Regulatory Requirements: None established.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: In the improbable event of product misting, provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust ventilation is preferred because it prevents contaminant dispersion to the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: If product dusting occurs, follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove material from your shoes and clean personal protective equipment after use.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. KEEP AWAY FROM CHILDREN.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Clear light amber with little or no odor.

Odor Threshold: Not determined.

Vapor Pressure: Not determined.

Vapor Density (Air=1): Not determined.

Formula Weight: N/A

Density: 8.52 lbs./gal..

Specific Gravity (H₂O=1, at 4 °C): 1.02

pH: 4.0 -5.0 Typical

Water Solubility: Completely soluble.

Other Solubilities: Insoluble in hydrocarbons.

Boiling Point: > 212°F.

Freezing Point: < 30°F.

Viscosity: Not determined.

Refractive Index: Not Determined.

Surface Tension: Not Determined.

% Volatile: Not Determined.

Evaporation Rate: Not Determined.

Section 10 - Stability and Reactivity

Stability: CV-600 is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: Do not store with oxidizers or acidic agents.

Conditions to Avoid: N/A

Hazardous Decomposition Products: Thermal oxidative decomposition of CV-600 can produce fumes of hydrogen chloride, and oxides of carbon, and nitrogen

Section 11- Toxicological Information

Toxicity Data:

Eye Effects: As received, irritation of eye membranes.

Acute Inhalation Effects:

Human, inhalation, TC_{LO}: Not established.

Skin Effects: As received, irritating effect.

Acute Oral Effects:

Rat, oral, LD₅₀: Not Established

Ingestion Effects: See Potential Health Effects.

Chronic Effects:

None known.

Carcinogenicity: None known.

Mutagenicity: None known.

Teratogenicity: None known.

Section 12 - Ecological Information

Ecotoxicity: Specific data not established. Under prescribed conditions of use, will not be toxic to mammalian, reptilian or piscine species.

Environmental Fate

Environmental Transport: Water or soil.

Environmental Degradation: Not established.

Soil Absorption/Mobility: Not established.

Section 13 - Disposal Considerations

Disposal: Contact Orenda Technologies, your local supplier or a licensed contractor for detailed recommendations.

Recovered spilled product may be disposed of by either landfill or incineration. Follow applicable Federal, state, and local regulations.

Disposal Regulatory Requirements: None.

Container Cleaning and Disposal: Thoroughly clean empty containers with water and recycle or dispose of. Do not use empty containers for food storage.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Chemicals,
NOS (Non-regulated)
Shipping Symbols: None.
Hazard Class: Nonhazardous.
ID No.: None.
Packing Group: N/A
Label: None.
Special Provisions (172.102):
None.

Packaging Authorizations
a) **Exceptions:** N/A
b) **Non-bulk Packaging:** N/A
c) **Bulk Packaging:** N/A

Quantity Limitations
a) **Passenger, Aircraft, or Railcar:** None.
b) **Cargo Aircraft Only:** None.

Vessel Stowage Requirements
a) **Vessel Stowage:** None.
b) **Other:** N/A

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ): None.

SARA 311/312 Codes: None.

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ).

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed.

OSHA Specifically Regulated Substance (29CFR 1910): Not listed.

State Regulations: None.

Section 16 - Other Information

Prepared By: Jarred Morgan

Revision Notes: July 2011

Additional Hazard Rating Systems: None.

Disclaimer: The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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