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**SECTION I - IDENTIFICATION**

**Product Name: VITAL-OXIDE**

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MANUFACTURER/DISTRIBUTOR

Vital Technologies, Inc.  
PO Box 2026  
Hobe Sound, FL 33475

PHONENUMBERS

Product Information  
Medical Emergency

(772) 545-9505 available 9am-5pm EST  
(800) 222-1222 available 24 hrs.

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**SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS**

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CHEMICAL FAMILY: Aqueous Oxidant

CHEMICAL NAMES

CONCENTRATION RANGE

Stabilized Chlorine Dioxide

<Less than 1%

n-Alkyl(60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride

<Less than 1%

n-Alkyl(68%C12,32%C14) Dimethyl Ethylbenzyl Ammonium Chloride

<Less than 1%

No active ingredients are present at concentrations greater than 1% by weight. Contains items withheld in accordance with OSHA 29 CFR XVII-1910.1200 Section (i) "Trade Secrets". At these levels none of the ingredients are known to pose any hazards to human health.

The liquid has a very mild ozone or chlorine-like odor. It is a water-based system with boiling and freezing points near those of water. At the concentrations used in this product no hazardous circumstances are anticipated if the product is used as directed.

WHMIS Classification: Not Controlled

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**SECTION III – HAZARDS IDENTIFICATION**

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Most Important Hazards: None      Specific Hazards: Moderate eye irritation may occur.

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**SECTION IV - PHYSICAL DATA**

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BOILING RANGE 212°F  
VAPOR PRESSURE Not Available  
VAPOR DENSITY Not Available  
WATER SOLUBILITY 100%  
APPEARANCE Colorless liquid

SPECIFIC GRAVITY (WATER = 1) 1.05  
PERCENT VOLATILES BY VOLUME 100%  
EVAPORATION RATE Less than Ether  
pH Approx. 8.5  
ODOR Mild-Fresh

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## SECTION V - FIRE/EXPLOSION HAZARDS

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FLAMMABILITY LIMITS: Non Flammable FLASHPOINT: N/A EXTINGUISHING MEDIA: N/A

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## SECTION VI - HEALTH HAZARD DATA

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**EFFECTS OF OVEREXPOSURE** ACUTE: **Breathing** - Albino rats exposed to a respirable aerosol made from a solution of stabilized chlorine dioxide at levels up to 2.09 mg/l for one hour resulted in no deaths or gross pathology. **Eye Contact** - Moderate ocular irritant. **Skin Contact** - Modified Draize test on albino rabbits - no dermal irritation on prolonged contact. **Swallowing** - Acute oral toxicity in albino rats: LD<sub>50</sub> is greater than >5,000 mg/kg.; CHRONIC: At the dilutions used in this formulation, chlorine dioxide was found to be non-toxic.

**FIRST AID MEASURES**: IF IN EYES - Flush with water. If irritation persists consult an MD.  
IF SWALLOWED - Give large amounts of water.

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## SECTION VII-REACTION DATA

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**STABILITY** - Stable

**CONDITIONS TO AVOID** - Contact with strong acids

**INCOMPATIBILITY (MATERIALS TO AVOID)** - Strong acids

**HAZARDOUS DECOMPOSITION PRODUCTS** - Thermal or other decomposition may yield chlorine dioxide or chlorine.

**HAZARDOUS POLYMERIZATION** - Will not occur

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## SECTION VIII - SPILL PROCEDURES

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**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED** - No special clean-up measures are required for the consumer product. To avoid the possibility of "bleaching" the spill should be absorbed with paper towels, and the area rinsed with clean water.

**WASTE DISPOSAL METHOD** - No special precautions are required for the consumer product.

**VOLATILE ORGANIC COMPOUNDS (VOC)** None

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## SECTION IX - SPECIAL PRECAUTIONS

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**RESPIRATORY PROTECTION** - None required for normal use. If consumer product accidentally contacts strong acids in restricted ventilation area, avoid breathing the vapors, and allow adequate time for the vapors to disperse before re-entering the restricted area.

**VENTILATION** - Use in adequately ventilated areas.

**PROTECTIVE GLOVES** - Not required for consumer product.

**EYE PROTECTION** - Not required for consumer product.

**OTHER PROTECTION** - Not applicable.

**BULK HANDLING AND STORAGE PRECAUTIONS** - Keep away from heat, and strong acids. Do not smoke. Prevent build-up of vapors by maintaining continuous flow of fresh air. Do not store above 120°F or near fire or open flame. Store large quantities in buildings that comply with OSHA 1910.106. Keep container closed when not in use. Do not transfer contents to bottles or other unlabelled containers. Do not reuse empty containers. Keep out of reach of children.