Safety Data Sheet

Vital Oxide

SDS Revision Date: **04/30/2015**

1. Identification

1.1. Product identifier

Product Identity	Vital Oxide
Alternate Names	

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	Disinfectant
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Orison Marketing, LLC 4801 South Danville Drive Abilene, TX 79602
Emergency	
Emergency CHEMTREC (USA)	(800) 424-9300
Customer Service: Orison Marketing, LLC	US: 800-460-2403

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

3. Composition/information on ingredients

Ingredient/Chemical Designations	Weight %	Notes
Oxychlorine Compounds CAS Number: Mixture	0.200	1
n-Alkyl Dimethyl Benzyl Ammonium Chloride CAS Number: 68391-01-5	0.125	1
n-Alkyl Dimethyl Ethylbenzyl Ammonium Chloride CAS Number: 85409-23-0	0.125	1
Inert Ingredients CAS Number: Mixture	99.55	1

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] At these concentrations none of the ingredients are known to pose any hazards to human health.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Does NOT cause any respiratory irritation. 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.

Eyes In case of contact, flush eyes with plenty of water.

Skin Does NOT cause skin irritation.

Ingestion Non-toxic. Give glass of water.

4.2. Most important symptoms and effects, both acute and delayed

Overview Inhalation: None expected. Does NOT cause any respiratory irritation. 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.

Eye Contact: Eye contact may cause mild eye irritation with discomfort.

Skin Contact: Does NOT cause skin irritation and the product is NOT a skin sensitizer.

Ingestion: Product is non-toxic.

5. Fire-fighting measures

5.1. Extinguishing media

Non-flammable liquid. Carbon Dioxide, Foam, Dry Chemical and Water Fog.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Thermal or other decomposition may yield chlorine dioxide or chlorine.

5.3. Advice for fire-fighters

Non-flammable liquid. Avoid breathing decomposition products. Fire fighters wear protective clothing and NIOSH approved respirator.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Spilled material may be slippery. Small spills can be washed into chemical sewers. Large spills should be collected for disposal. Dike area to contain spill. Absorbin sand, earth, vermiculite or similar material. Wear appropriate protective equipment.

Incinerate or dispose of in approved solid waste disposal area per current regulations.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat and strong acids. Handle containers carefully to prevent damage and spillage.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials: Strong Acids.

Store in a dry location away from heat and strong acids. Keep containers closed when not in use.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
Mixture	Oxychlorine Compounds	OSHA	Not available
		ACGIH	Not available
		NIOSH	Not available

Carcinogen Data

CAS No.	Ingredient	Source	Value
68391-01-5	n-Alkyl Dimethyl Benzyl Ammonium Chloride	OSHA	Not available
		NTP	Not available
		IARC	Not available

CAS No.	Ingredient	Source	Value
85409-23-0	n-Alkyl Dimethyl Ethylbenzyl Ammonium Chloride	OSHA	Not available
		NTP	Not available
		IARC	Not available

8.2. Exposure controls

Respiratory None required for normal use, does NOT cause any respiratory irritation. 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.

Eyes Not required for normal use.

Skin Not required for normal use.

Engineering Controls Use in adequately ventilated areas.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear Liquid
Odor	Mild-Fresh
Odor threshold	Not Measured
pH	8 - 9
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	212 F (100 C)
Flash Point	Not Measured (non-flammable)
Evaporation rate (Ether = 1)	< 1 (Ether = 1)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.003 (Water = 1)
Solubility in Water	Complete
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured (water like)

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Keep away from strong acids.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Thermal or other decomposition may yield chlorine dioxide or chlorine.

11. Toxicological information

TOXICITY TESTING – Non Toxic
Acute Inhalation – Studies with Wistar Albino rats exposed to a respirable aerosol made from a solution of Vital Oxide at a level of 2.08 mg/l for four hours resulted in no deaths and no abnormal necropsy observations.
Eye Contact – Studies with New Zealand white rabbits showed this product is a very mild ocular irritant; mild irritation was observed, but cleared within 24 hours.
Skin Contact – Study of dermal toxicity in New Zealand white rabbits showed the product to be non-toxic: Dermal LD_{50}> 5000 mg/kg of body weight; Study of dermal irritation in New Zealand white rabbits showed the product is not a dermal irritant. In Dermal Sensitization studies, Vital Oxide was determined not to be a sensitizer.
Oral / Swallowing – Non Toxic. Acute oral toxicity in albino rats: Non-toxic LD50>5000 mg/kg of body weight.

EPA TOXICITY RATING – IV (For all exposure routes). This is the lowest category on the scale and is designed for substances that are the least hazardous.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

12. Ecological information

12.1. Toxicity
Non-toxic, non-hazardous, safe for the environment.

12.2. Persistence and degradability
The product is readily biodegradable
12.3. Bioaccumulative potential
Not Measured
12.4. Mobility in soil
No data available.
12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.
12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification Not Regulated

US EPA Tier II Hazards

Fire: No

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): No

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and is not valid for such material used in combination with any other materials or in any process, unless specified in the text.

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