

**Material Safety Data Sheet**

Version 2.0

Issue Date: 04/16/2018

Previous version 10/16/2014

**1. PRODUCT AND COMPANY IDENTIFICATION**Product Name: **Virocidin-X**

Other means of identification: N/A

Recommended Use: Hard Surface Disinfectant Cleaner

Recommended Restrictions: No other uses are advised.

Manufacturer: KAM Scientific Inc.  
4-1250 Waverley Street  
Winnipeg, MB R3T 6C6  
Canada  
Phone #: 204-928-7902

Supplier: KAM Scientific Inc.  
4-1250 Waverley Street  
Winnipeg, MB R3T 6C6  
Canada  
Phone #:204-928-7902

Emergency Number: (204) 228-7015

**2. HAZARDS IDENTIFICATION**

Classification of mixture: Eye irritant, skin irritant

Signal word: **WARNING**

Hazard statement(s): Causes Eye and skin irritation.

Precautionary statement(s):

- **KEEP OUT OF REACH OF CHILDREN. HARMFUL IF SWALLOWED.**
- Do not get into eyes, on skin or on clothing. Odors may irritate. Use in well ventilated areas. Avoid prolonged breathing of vapor. For sensitive skin or prolonged use, wear rubber gloves. Avoid contact with clothes, fabric, wood, rubber, carpet and painted surfaces.
- This product contains bleach. Do not mix with other house hold chemicals such as products containing ammonia, toilet bowl cleaners or acidic cleaners, as hazardous gases may be released.

Other hazards which do not result in classification: None known.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Common Name and Synonym	CAS Number	Concentration
1,1 - dimethylethanol	tert-Butyl alcohol	75-65-0	~5%
Sodium hypochlorite	Bleach, sodium salt	7681-52-9	~0.5%
Sodium dodecyl sulfate	Sodium lauryl sulfate, SDS,	151-21-3	~0.01%

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#### 4. FIRST-AID MEASURES

##### General Advice

If you feel unwell, seek medical advice. Show this safety data sheet to the doctor in attendance.

##### Inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### Skin contact:

Wash off with soap and plenty of water. Consult a physician.

##### Eye contact:

Rinse thoroughly with plenty of water for at least 15 minutes. Seek medical attention.

##### Ingestion:

Do NOT induce vomiting. Drink a glass of water and seek medical attention. Never give anything by mouth to an unconscious person.

##### Potential Short Term Health Effects

<b>Routes of Exposure</b>	Eye, Skin contact, Inhalation, Ingestion
<b>Eyes</b>	Causes eye irritation. Do not get into eyes.
<b>Skin</b>	Causes skin irritation. Do not get on skin or clothing.
<b>Inhalation</b>	Odors may irritate. Avoid prolonged exposure.
<b>Ingestion</b>	Harmful if swallowed.
<b>Target Organs</b>	Eyes. Respiratory system. Skin.
<b>Chronic Effects</b>	The finished product is not expected to have chronic effects.

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#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not Flammable by WHMIS criteria.
<b>Suitable Extinguishing Media</b>	Water, spray, foam, dry chemical, carbon dioxide.
<b>Hazardous combustions products</b>	May include and are not limited to: Oxygen, chlorine gas.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not Available
<b>Sensitivity to Static Discharge</b>	Not Available
<b>Flash Point</b>	Not Available
<b>Upper Flammable limit</b>	Not Available
<b>Lower Flammable limit</b>	Not Available
<b>PPE for Firefighters</b>	Wear self-contained breathing apparatus for firefighting.

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#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal Precautions

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.

##### Methods and Materials for containment and cleaning up

Contain spillage and absorb with inert material. Transfer to a container for disposal according to local regulations.

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#### 7. HANDLING AND STORAGE

##### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use in a well-ventilated areas.

##### Conditions for safe storage

Keep container tightly closed in a well-ventilated space. Store in the original container. Do not reuse empty container.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limit Ingredient(s)</u>	<u>Exposure Limit Values (TLV)</u>
Sodium hypochlorite	Not Established
1,1 - dimethylethanol	303 mg/m <sup>3</sup>
Sodium dodecyl sulfate	Not Established

### Engineering Controls

Use only under good ventilation conditions or with respiratory protection.

### Respiratory Protections

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of vapors generated by this product during a spill or other clean-up operations.

### Hand Protection

Avoid contact with the skin. For sensitive skin or prolonged use, wear rubber gloves.

### Eye Protections

Avoid contact with eyes. Wear safety glasses with side shields. Emergency responders should wear full eye and face protection.

### Skin and Body Protection

As required by employer code. Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	Liquid
Color	Light Straw

**Odour** Scented

**Odour threshold** Not Available

**pH** 9.0 – 10.0

**Melting point** Not Applicable

**Freezing point** -3C

**Initial boiling point** 100C

**Boiling range** Not Available

**Flash point** Not Available

**Evaporation rate** Not Applicable

**Flammability (solid; gas)** Not Available

**Lower flammable/explosive limit** Not Available

**Upper flammable/explosive limit** Not Available

**Vapor pressure** Not Available

**Vapor density** Not Available

**Relative density** 1.003 g/mL at 25C

**Solubility** Water Solubility - Completely Soluble

**Partition coefficient - n-octanol/water** Not Available

**Auto-ignition temperature** Not Available

**Decomposition temperature** Not Available

**Viscosity** Not Available

## 10. STABILITY AND REACTIVITY

**Reactivity** Not Available

**Chemical stability**

Unstable above 40C, in sunlight and in contact with metals.

**Possibility of hazardous reactions**

None known.

**Conditions to avoid**

None known.

**Incompatible materials**

Strong Acids, Strong Caustics, Ammonia, Oxidizing Materials, Urea, Copper, Nickel, Tin, Manganese, Iron.

**Hazardous decomposition products**

May include and are not limited to: Chlorine Gas and Oxygen.

## 11. TOXICOLOGICAL INFORMATION

**Component Analysis – LC50 Inhalation**

Ingredient	LC 50
1,1 - dimethylethanol	No Data
Sodium hypochlorite	>5250 mg/m3 rat
Sodium dodecyl sulfate	>3900 mg/m3 rat

**Component Analysis – LD50 Oral**

Ingredient	LD 50
1,1 - dimethylethanol	2743 mg/kg rat
Sodium hypochlorite	8200 mg/kg rat; 5800mg/kg mouse

Sodium dodecyl sulfate	1200 mg/kg rat
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<b>Effects of Acute Exposure</b>	
<b>Eyes</b>	Causes eye irritation. Do not get in eyes.
<b>Skin</b>	Causes skin irritation. Do not get on skin or clothing.
<b>Inhalation</b>	Odours may irritate. Avoid prolonged breathing of vapour.
<b>Ingestion</b>	Harmful if swallowed.
<b>Sensitization</b>	The finished product is not expected to have chronic health effects.
<b>Chronic Effects</b>	The finished product is not expected to have chronic health effects.
<b>Carcinogenicity</b>	The finished product is not expected to have chronic health effects.
<b>Mutagenicity</b>	The finished product is not expected to have chronic health effects.
<b>Reproductive Effects</b>	The finished product is not expected to have chronic health effects.
<b>Teratogenicity</b>	The finished product is not expected to have chronic health effects.
<b>Name of Toxicologically Synergistic Products</b>	Not Available

## 12. ECOLOGICAL INFORMATION

<b>Toxicity</b>	Not Available
<b>Persistence and degradability</b>	Not Available
<b>Bioaccumulative potential</b>	Not Available
<b>Mobility in soil</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

## 13. DISPOSAL CONSIDERATIONS

### Disposal/Spillage Instructions

Dispose in accordance with all applicable regulations. Do not reuse empty container. Do not let product enter drains. Discharge to the environment must be avoided.

### Unused Product

Dispose in accordance with all applicable regulations. Do not reuse empty container.

### Contaminated Packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation (DOT)

<b>UN number</b>	3266
<b>UN proper shipping name</b>	Corrosive liquid, basic, inorganic, N.O.S. (Sodium hypochlorite).
<b>Transport hazard class</b>	8
<b>Packing group</b>	III
<b>Environmental hazards</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge to the environment must be avoided.

### Transportation of Dangerous Goods (TDG – Canada)

<b>UN number</b>	3266
<b>UN proper shipping name</b>	Corrosive liquid, basic, inorganic, N.O.S. (Sodium hypochlorite).
<b>Transport hazard class</b>	8
<b>Packing group</b>	III
<b>Environmental hazards</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge to the environment must be avoided.

**IATA/ICAO (Air)**

<b>UN number</b>	3266
<b>UN proper shipping name</b>	Corrosive liquid, basic, inorganic, N.O.S. (Sodium hypochlorite).
<b>Transport hazard class</b>	8
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Comments</b>	The shipper is responsible for identifying any exemptions, including Limited Quantity, that may apply based on package size.

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**15. REGULATORY INFORMATION****Canadian Federal Regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

**Canada – WHMIS – Ingredient Disclosure List**

Sodium Hypochlorite – 7681-52-9 – 0.5%

**WHMIS Classification**

Exempt – Registered Product – (DIN02239070)

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**16. OTHER INFORMATION**

Issue Date: 04/16/2018

Previous version: 10/16/2014

This product should only be used as directed on the label and for the purpose intended. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability on any materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of SDS