# LOUDOUN COUNTY PUBLIC SCHOOLS DEPARTMENT OF SUPPORT SERVICES



# DEPARTMENT OF SUPPORT SERVICES FACILITIES SERVICES DIVISION

1002C Sycolin Road, S.E. Leesburg, Virginia 20175 (571) 252-2960

# ELECTRO-STATIC EQUIPMENT USE AND CARE THIS LABEL IS TO BE PLACED ON THE BACKPACK UNIT OR HANDHELD CASE

#### THIS MACHINE MUST BE OPERATED ONLY BY A SUPERVISOR OR LEAD HC

All persons operating this unit will have read the users manual for the safe use and maintenance and reviewed the video's for use and care found on the Victory Innovations website: <a href="https://www.victorycomplete.com/videos">https://www.victorycomplete.com/videos</a>

Persons operating this unit will have read the Standard Operating Procedure document "Disinfecting Bio-Hazards" and will follow the safe use and process outlined for this procedure and the safety of yourself and staff.

#### **USING**

- 1. Use only the disinfectants approved by LCPS
- 2. Only the person operating the spray unit is to be in the room while spraying
- 3. Ensure your nozzle is set for the appropriate disinfectant:
  - i. 40 microns Oxivir; 80 microns Virex
- 4. Spray starting on the far side of the room, working your way out the door.
- 5. Spray in a "S" type of pattern approx. 6' wide, top to bottom.
- 6. Right to left approx. 6'; then down 2'; then left to right approx. 6', continue.
- 7. Check to ensure the surface is still damp at the end of your dwell time:
  - i. 5 minutes Oxivir; 10 minutes Virex

#### **CLEANING**

- 1. Empty disinfectant reservoir
- 2. Rinse the reservoir with clean cold water
- 3. Remove the spray nozzle and soak in hot water for 10 minutes
- 4. Replace nozzle after use, set to the spray nozzle (40 or 80 or 120 microns) that you were using to spray the room.
- 5. Fill reservoir with 1 quart of warm water
- 6. Spray the clean warm water in the reservoir through the unit and nozzle until empty.
- 7. Clean and wipe dry the whole unit
- 8. Place unit into its case with all accessories.
- 9. Put the battery on the charger for next application when you get to the area that the unit is stored at.



# ounty Public Services

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Feb 5, 2020

From: Kevin Primeau, Custodial Services Supervisor

Subject: STANDARD OPERATING PROCEDURE: DISINFECTING BIO-HAZARDS

For the prevention or disinfection of areas that may have been exposed to viruses (flu,

norovirus, etc.) or Bacteria (e. Coli, Salmonella, Strep, MRSA, STAPH, etc.)

Effective immediately the following procedure is to be used in response to a request for disinfecting or as a preventative initiative against viruses & bacteria's in our buildings.

This process is to be performed by supervisory staff of the custodial operations department and may include other custodial staff as support.

The following process will be used to inactivate most viruss and kill most bacteria when using the correct disinfectant and ensuring the dwell times are adhered to.

Prior to the spraying, surfaces must be clean of all dirt & debris.

## LCPS uses one primary disinfectants for this purpose:

- 1) Oxivir Five 16 concentrate by Diversey
  - a. Dwell time is 5 minutes, nozzle is 40 microns.
  - b. Will disinfect & deactivate Norovirus, MRSA etc.
  - c. Used diluted as dispensed through Quatro dilution stations

#### **Distribution Method of the disinfectant:**

- Delivered with the Victory Electro-static sprayers, hand-held or backpack.
- Concentrated disinfectant to be diluted by the Quatro station
- Delivered to the holding tank of the sprayer from the Quatro station
- Sprayed in a horizontal 'S' pattern top to bottom

#### Safety and SDS

- Please read and understand how to use these disinfectants by referring to the SDS sheet at the school or on-line or inside the electro-static storage case.
- In the event of a spill or accident of the un-diluted/concentrated chemical, leave the area and mess until you have read and understand the SDS regarding the risks and the proper PPE to wear to clean the area.



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#### • What to Disinfect:

- Classrooms:
  - Student desks (must be free of all backpacks, clothing, papers & cases/holders)
  - Doorknobs, handles, Purell dispensers, pencil sharpeners
  - All surfaces that students & teachers touch regularly
  - Wall switches are ok to spray
  - Do not spray directly on sensors such as fire/smoke alarm etc.
- Bathrooms & Showers:
  - All surfaces including walls, toilet, sinks, urinals, dispensers, faucets, stall dividers, doors, handles, knobs, floor
  - Shower stalls, curtains, walls, floors, faucets, knobs, etc.
- Hallways:
  - Walls up to shoulder height, fixtures attached to walls, water fountains
  - Lockers, tables, chairs, dividers, door knobs, handles, etc.
- Special Needs Classrooms:
  - All surfaces including toys, bins, etc.
- Gymnasiums:
  - Walls, bleachers
- Athletic Locker Rooms:
  - All surfaces including benches, lockers.
  - Follow bathroom and shower directions above
- Weight Rooms:
  - All equipment & benches, balls, rope handles
  - Walls, floors
  - Hanging ropes, climbing poles, chin-up bars
- Wrestling rooms:
  - All mats on the floor & walls
  - Agitation is required for mats and walls, see instructions following this (Disinfecting for MRSA)
  - Hanging ropes, climbing poles, chin-up bars
- Cafeteria:
  - Tables, booths, chairs
  - Top and underneath table tops
  - All fixtures on walls including Purell, soap and paper dispensers
- Other areas or items may be disinfected depending on circumstances and as requested by the Administrator of the building, FACS or Supervisor of Custodial Services. Process to do so would be similar to any of the above for indoor areas.
- If spraying outdoors, the process is the same but the disinfectant to be used will be different. Please refer to the Custodial Supervisor for direction.



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## Personal Protective Equipment required.

Persons disinfecting an area will wear the appropriate protection as follows:

- 1. Supervisor/Lead HC using the electro-static sprayer:
  - Nitrile gloves against the skin, this is the 1<sup>st</sup> pair to be worn
  - Nitrile or vinyl gloves, 2<sup>nd</sup> pair over the 1<sup>st</sup> pair
  - MAXair with cuff & filter...OR...
    - Goggle or safety glasses to protect the eye
    - MSA Vertoggle or other safety glasses or goggle.
    - N95 paper respirator (mask)
  - Long sleeve shirt/top
  - Long legged pants
  - White paper coverall (Tyvek type) is optional

## 2. Supporting staff:

- Nitrile or vinyl gloves
- N95 paper respirator (mask)
- Long sleeve shirt/top
- Long legged pants
- Eye protection









MSA Vertoggle closed and open

N95 paper respirators, masks







Coverall suit

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#### **Disinfecting Process:**

- 1. Determine your risk:
  - Preventative or
  - Known bio-hazard (Virus, flu, norovirus; Bacteria, MRSA, Staph, etc.)
- 2. Gather tools and supplies needed depending on risk assessment
  - i.e. For MRSA, Staph etc., you will need microfiber mops & rags & equipment
  - Electro-static sprayer and disinfectants prepped in custodial closet
  - Electro-static sprayer set to the correct size if using the adjustable nozzle.
    - Virex = 80 microns; Oxivir = 40 microns
- 3. Don appropriate PPE
  - Sprayer (Supervisor or Lead HC) & Support staff
- 4. Sprayer:
  - Only the sprayer should be in the room/area until it is completely sprayed
  - Spray room, top to bottom walking between all desks, chairs etc.
  - Spray from far side of the room walking yourself out the door
  - Check to ensure the room is still damp at the end of the dwell time
    - Virex = 10 min; Oxivir = 5 min.
  - If at the end of the dwell time the surfaces are not still damp, re-spray the room but do the process slower than your previous attempt.
    - Check to ensure it is still damp at the end of the dwell time again.
  - Once the room is dry, it is ready to be occupied
  - There is no need to do a 2<sup>nd</sup> application unless a bacteria such as MRSA or Staph is suspected. If this is the case, continue with the following steps:

Disinfecting when a bacteria such as MRSA is suspected, REQUIRES vertical and horizontal surfaces to be agitated (using a microfiber mop and or cloth) immediately after it is sprayed. This is to ensure that the disinfectant reaches all bacteria cells especially if they are the type that group together. It especially applies to benches, wrestling mats and other mats. Continue with the following steps:

- Spray 1<sup>st</sup> application, leave wet for dwell time; let air dry.
- Spray  $2^{nd}$  application (this will be the  $2^{nd}$  application). While still wet, agitate with mop or cloths, let dry.
- *Spray again (3<sup>rd</sup> application), let dry.*
- 5. Support Staff cleaning:
  - Enter the area once the spraying is completed
  - Perform follow-up cleaning as directed
- 6. Supervisor or Lead HC is to clean all equipment:
  - Spray goggles with electro-static device, let dry; rinse with clean water and dry
  - Clean the sprayer nozzle (soak in hot water 10 min), fill chemical reservoir with clean water and spray approximately 1 quart of water through the gun and nozzle
  - Place the battery on the charger



# Oxivir Five 16 Concentrate (LCPS uses for bodily fluid clean ups)

Preparation date: 2017-02-01 Version Number: 4

#### 1. IDENTIFICATION

Oxivir Five 16 Concentrate (US) Product name:

**Product Code:** 4963314, 4963331, 4963357, 5019296, 5271361, 5285287

MS0800464 SDS #:

Recommended use: • Disinfectant / Deodorizer / Sanitizer

· Industrial/Institutional

• This product is intended to be diluted prior to use Uses other than those identified are not recommended Uses advised against:

Manufacturer, importer, supplier:

**US** Headquarters Diversey, Inc. P.O. Box 19747 Charlotte, NC 28219-0747

Phone: 1-888-352-2249

SDS Internet Address: https://sds.diversey.com

Emergency telephone number: 1-800-851-7145; 1-651-917-6133 (Int'I)

#### 2. HAZARDS IDENTIFICATION

#### Classification for the undiluted product

Serious eye damage/eye irritation Category 2B

Signal Word: Warning.

#### **Hazard and Precautionary Statements**

#### CAUSES EYE IRRITATION.

Wash thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. SUPPLEMENTAL INFORMATION:. DO NOT MIX WITH AMMONIA, BLEACH OR OTHER CHLORINATED COMPOUNDS. Mix only with water. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in spattering and excessive heat.

Health hazards not otherwise classified (HHNOC) - Not applicable Physical hazards not otherwise classified (PHNOC) - Not applicable

#### Classification for the diluted product @ 1:16

This product, when diluted as stated on the label, is not classified as hazardous according to OSHA 29CFR 1910.1200 (HazCom 2012-GHS) and Canadian Hazardous Products Regulations (HPR) (WHMIS 2015-GHS).

#### Hazard and Precautionary Statements

None required

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Classified Ingredients** 

Ingredient(s)	CAS#	Weight %
Propylene glycol n-propyl ether	1569-01-3	5 - 10%
Dodecylbenzene sulfonic acid	68584-22-5	5 - 10%

Ethoxylated linear alcohol	68439-45-2	5 - 10%
Hydrogen peroxide	7722-84-1	3 - < 5%
Phosphoric acid	7664-38-2	3 - < 5%

<sup>\*</sup>Exact percentages are being withheld as trade secret information

#### 4. FIRST AID MEASURES

#### **Undiluted Product:**

Eyes: Rinse with plenty of water. If irritation occurs and persists, get medical attention. **Skin:** Rinse with plenty of water. If irritation occurs and persists, get medical attention.

**Inhalation:** No specific first aid measures are required.

Ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel.

Notes to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Most Important Symptoms/Effects: No information available.

Immediate medical attention and special treatment needed Not applicable.

Aggravated Medical Conditions: None known.

#### **Diluted Product:**

**Eyes:** Rinse with plenty of water If irritation occurs and persists, get medical attention.

**Skin:** No specific first aid measures are required Inhalation: No specific first aid measures are required

**Ingestion:** Rinse mouth with water.

#### 5. FIRE-FIGHTING MEASURES

Specific methods: No special methods required

Suitable extinguishing media: The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

Specific hazards: Not applicable.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

(approved or equivalent) and full protective gear.

Extinguishing media which must not be used for safety reasons: No information available.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Put on appropriate personal protective equipment (see Section 8.).

**Environmental precautions** Clean-up methods - large spillage. Absorb spill with inert material (e.g. dry sand or earth), then place in and clean-up methods:

a chemical waste container. Use a water rinse for final clean-up.

#### 7. HANDLING AND STORAGE

Handling: Avoid contact with eyes and clothing. Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet and after handling product. Mix only with water. DO NOT MIX WITH AMMONIA, BLEACH, OR OTHER CHLORINATED COMPOUNDS. Can react to release hazardous gases. May vigorously react with strong alkaline products resulting in spattering and excessive heat. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

Storage: Keep tightly closed in a dry, cool and well-ventilated place.

Aerosol Level (if applicable): Not applicable.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Exposure Guidelines:**

Ingredient(s)	CAS#	ACGIH	OSHA
Hydrogen peroxide	7722-84-1	1 ppm (TWA)	1 ppm (TWA) 1.4 mg/m³ (TWA)
Phosphoric acid	7664-38-2	3 mg/m³ (STEL) 1 mg/m³ (TWA)	1 mg/m³ (TWA)

#### **Undiluted Product:**

#### Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels.

**Personal Protective Equipment** 

Eye protection: Safety glasses are not normally required. However, their use is recommended in those cases where

handling the undiluted product involves a risk of splashing.

Hand protection: If prolonged or repeated contact with skin may occur, wear chemical-resistant gloves.

Skin and body protection:

Respiratory protection:

No personal protective equipment required under normal use conditions.

No personal protective equipment required under normal use conditions.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

**Diluted Product:** 

Engineering measures to reduce exposure:

Good general ventilation should be sufficient to control airborne levels

Personal Protective Equipment

Eye protection:(No personal protective equipment required under normal use conditions.)Hand protection:(No personal protective equipment required under normal use conditions.)Skin and body protection:(No personal protective equipment required under normal use conditions.)Respiratory protection:(No personal protective equipment required under normal use conditions.)Hygiene measures:(Handle in accordance with good industrial hygiene and safety practice.)

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Evaporation Rate: No information available Odor threshold: No information available. Melting point/range: Not determined

Autoignition temperature: No information available

Solubility in other solvents: No information available Density: 8.66 lbs/gal 1.038 Kg/L Bulk density: No information available

Flash point (°F): > 200 °F > 93.4 °C

Dilution Flash Point (°F): > 200 °F > 93.4 °C

Elemental Phosphorus: 1.314 % by wt.

pH: 1.0 Dilution pH: 1.9 @ 1:16

Corrosion to metals: Not corrosive

Explosion limits: - upper: Not determined - lower: Not determined

Color: Colorless
Odor: Characteristic

Boiling point/range: Not determined

Decomposition temperature: Not determined

Solubility: Completely Soluble

Relative Density (relative to water): 1.038 Vapor density: No information available Vapor pressure: No information available.

Partition coefficient (n-octanol/water): No information available

Viscosity: No information available

VOC: 8.32 % \*

VOC % by wt. at use dilution 0.47 % \*
Flammability (Solid or Gas): Not applicable
Sustained combustion: Not applicable

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

#### 10. STABILITY AND REACTIVITY

Reactivity: Not Applicable Stability: The product is stable

**Possibility of hazardous reactions:** May vigorously react with strong alkaline products resulting in spattering and excessive heat.

Hazardous decomposition products: Oxygen.

Materials to avoid: Strong bases. Ammonia. Do not mix with chlorinated products (such as bleach). Do not mix with any

other product or chemical unless specified in the use directions.

Conditions to avoid: No information available.

#### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

Skin contact, Eye contact, Inhalation, Ingestion

Delayed, immediate, or chronic effects and symptoms from short and long-term exposure

Skin contact: May be mildly irritating to skin.

Eye contact: Causes eye irritation.
Ingestion: May be harmful if swallowed.
Inhalation: No information available.
Sensitization: No known effects.
Target Organs (SE): None known

Target Organs (RE): None known

Numerical measures of toxicity

ATE - Oral (mg/kg): 4100 ATE - Dermal (mg/kg): >5000 ATE - Inhalatory, mists (mg/l): >20

#### 12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available.

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

## 13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food, or feed by storage or disposal.

#### Waste from residues / unused products (undiluted product):

This product, as sold, if discarded or disposed, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

#### Waste from residues / unused products (diluted product):

This product, when diluted as stated on this SDS, is a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the waste solution meets RCRA criteria for hazardous waste. Dispose in compliance with all Federal, state, provincial, and local laws and regulations.

#### Pesticide Storage:

Refer to product label.

#### Pesticide Disposal:

Refer to product label.

#### **Container Disposal:**

Refer to product label.

RCRA Hazard Class (undiluted product): D002 Corrosive Waste. RCRA Hazard Class (diluted product): D002 Corrosive Waste.

#### 14. TRANSPORT INFORMATION

<u>DOT/TDG/IMDG:</u> Proper shipping descriptions can vary by pack size. Please refer to the Diversey HazMat Library, http://naextranet.diversey.com/dot/, for up to date shipping information.

DOT (Ground) Bill of Lading Description: NOT REGULATED

IMDG (Ocean) Bill of Lading Description: NOT REGULATED

#### 15. REGULATORY INFORMATION

International Inventories at CAS# Level

#### U.S. Regulations

**EPA Reg. No.**: 70627-58

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear chemical splash-proof goggles or face shield. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **CERCLA/ SARA**

Ingredient(s)	CAS#	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Hydrogen peroxide	7722-84-1	3 - < 5%		1000	
Phosphoric acid	7664-38-2	3 - < 5%	5000		

#### **Canadian Regulations**

#### **16. OTHER INFORMATION**

#### NFPA (National Fire Protection Association)

Rating Scale: (Low Hazard) 0 - 4 (Extreme Hazard)

Health 1 Flammability 0 Instability 0

#### **Diluted Product:**

Health 0 Flammability 0 Instability 0

Version Number: 4

Preparation date: 2017-02-01

Reason for revision: Not applicable Prepared by: NAPRAC

Additional advice: • Does not contain an added fragrance

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