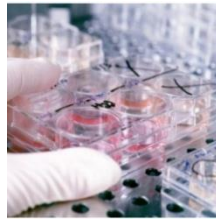




NATIONAL INSTITUTE FOR  
OCCUPATIONAL HEALTH

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# Cleaning and Disinfection Procedures GP and Dental practices



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- **Cleaning** :removal of foreign material from surfaces.
  - Uses **detergent** or **enzymatic** cleaners and water
  - Does **NOT** kill germs
  - Lowers the risk of spreading infection

**Disinfection:** Does not clean dirty surfaces

- use of **chemicals** to kill surface germs
  - **kill germs** on a surface *after* cleaning
  - Can further lower the risk of spreading infection
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- Use of **CORRECT** disinfectants is important
    - Preventing and reducing the spread of disease
  - Disinfectants may **NOT** work on all surfaces
    - Porous (carpets, bedding, clothing)
    - Semi-porous (Wood, dry wall, hardwood floor)
    - Non-porous (Some tiles& counter tops, glass, metal,)
  - Autoclaving, chemical vapor, dry heat
  - Some disinfectants can be **toxic** and **expensive**
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The World Health Organization (WHO) and Centres for Disease Control and Prevention (CDC) recommend that appropriate disinfectants with proven activity against enveloped viruses be used to minimize the risk of transmission of COVID-19.

- Examples include

- hypochlorite (bleach or jik)
  - alcohol (at least 60%)
  - hydrogen peroxide
  - phenolic compounds
  - quaternary ammonium compounds (QAC)
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# TYPES OF DISINFECTANTS

- Disinfectants can be **Undiluted** or **diluted**
    - Used **alone** or **combination**
    - Follow **manufacturer instructions** or product **label**
  - **Surfaces:** Liquids , powder, surface wipes
    - Disinfect **frequently touched surfaces** regularly (e.g. shared equipment, doorknobs, desks, chairside computers, x-ray equipment, taps etc.)
  - **Hands:** antimicrobial **soaps**, hand **gels** and **wipes**
    - **Clean** hands at the **door** and at **regular intervals**
    - **Gels** must be allowed to **dry** (No rinsing)
    - Use proper hand wash **technique** (e.g. WHO)
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# CLEANING AND DISINFECTION PROCEDURES

- Clean dirty surfaces with detergent or soap and water prior to disinfection.
  - Use protective barriers for chair switches and light handles
  - Wear disposable gloves when cleaning and disinfecting surfaces and dispose after each cleaning
  - If reusable gloves are used, should be dedicated (not used for other purposes) and disinfected
  - Ensure adequate supply of cleaning materials for healthy hygiene practices
  - Hand hygiene supplies should be accessible in patient care areas and change rooms
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- **Effectiveness** of the disinfectant depends on:
    - **Concentration** used (e.g. **dilution**; 99,9%)
      - $\uparrow$  Concentration =  $\uparrow$  Efficacy = shorter time
    - **Ingredients**, **storage** conditions, **method**
    - **Volume** (e.g. 2ml for hand gel)
    - **Contact** or exposure **time** (e.g. 10min, 5min, 1min)
    - **pH**:  $\uparrow$ pH improve microbial activity but  $\downarrow$  of others
    - **Location of MOs**: penetration (joints) is difficult
    - **RH**: influence activity of gaseous disinfectants
    - **In/Organic** matter: interfere with AntiM. activity
    - **Compliance** standard (e.g. EN, SANS)
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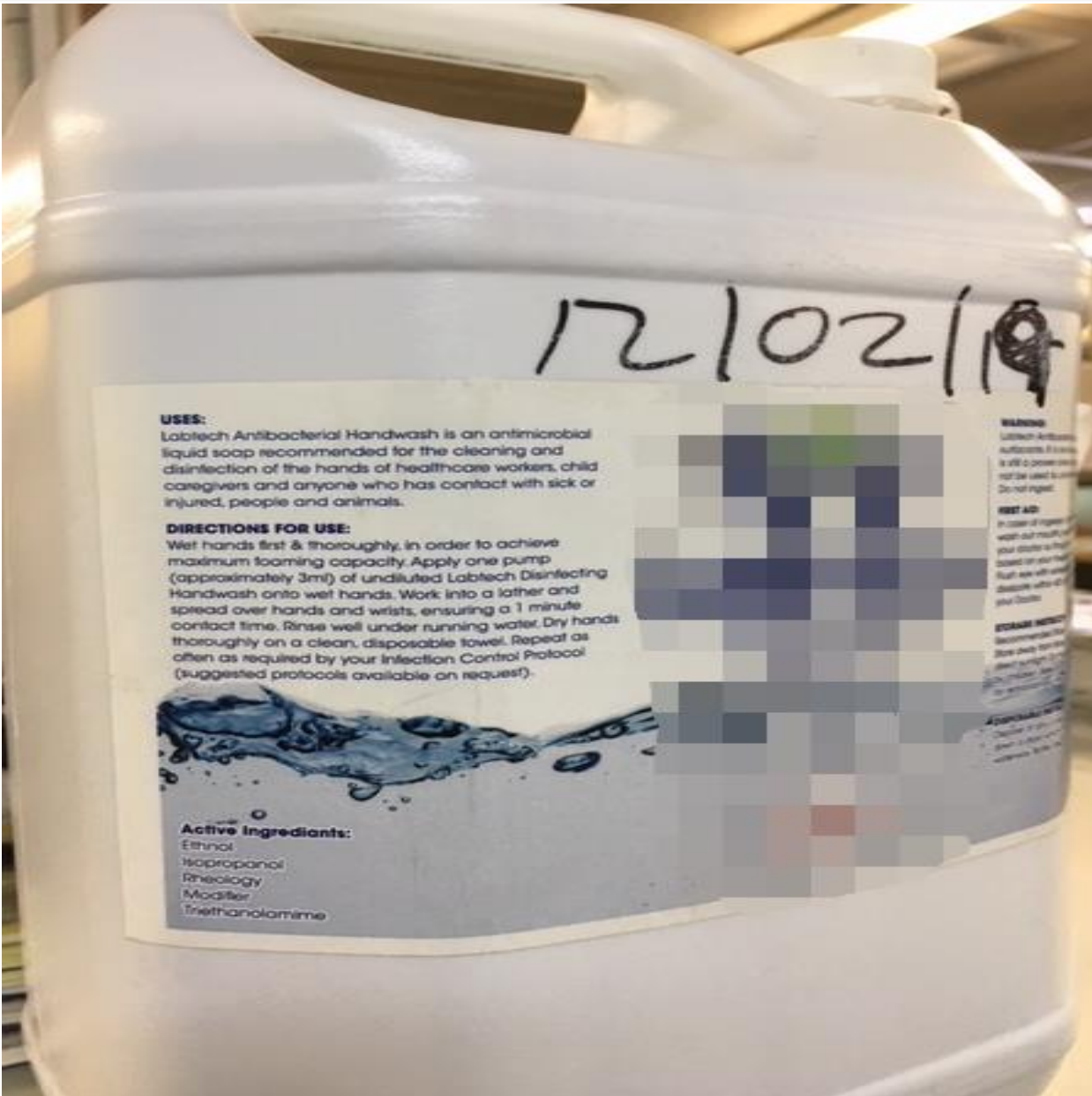
- **Safety** consideration when using the disinfectants:
    - Material Data Safety Sheets (MSDSs)
    - Wash hands after use and moisturise hands
    - Increase air circulation (open window and fan)
    - Users should be trained and provided with PPE
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# LIST OF EPA REGISTERED DISINFECTANTS

<a href="#">EPA Registration Number</a>	Active Ingredient/s	Product Name	Company	Follow the disinfection directions and preparation for the following virus	Contact time (time surface should remain wet)	Formulation Type	Emerging Viral Pathogen Claim?	Date Added to List N
10324-194	Quaternary ammonium	MAQUAT 2420-10	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020
10324-198	Quaternary ammonium	MAQUAT 702.5-M	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020
10324-214	Hydrogen Peroxide; Peroxyacetic Acid	MAGUARD 5626	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020
10324-230	Hydrogen Peroxide; Peroxyacetic Acid	MAGUARD 1522	MASON CHEMICAL COMPANY	Coronavirus	1 minute	DILUTABLE	N	03/03/2020
10324-57	Quaternary ammonium	MAQUAT 42	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020
10324-58	Quaternary ammonium	MAQUAT 128	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020
10324-63	Quaternary ammonium	MAQUAT 10	MASON CHEMICAL COMPANY	Coronavirus	10 minutes	DILUTABLE	N	03/03/2020

# Example



- Undiluted
- One pump= $\sim$ 3ml
- 1 min contact time
- No Expiry date
- % Alcohol not indicated

# EXAMPLE OF MSDS

**Recommended Use :** Hand Sanitiser

**Restrictions on Use :** This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use.

## Section 2 - COMPOSITION/INFORMATION ON COMPONENTS

**Substance / Preparation :** Preparation

**Chemical Nature :** Alcohol denatured (70%)

**Hazardous Components :** Flammable

**Ingredient Listing :** Ethyl Alcohol 70%, Carbomer, Aqua (Water), Triethanolamine, Glycerine, Perfume (Fragrance)

**Active Ingredients :** Alcohol denatured

## Section 3 - HAZARDS IDENTIFICATION

### GHS Classification

**Flammable Liquids :** Category 3

**Eye Irritation :** Category 2A

- WHO
- CDC
- EPA
- NICD/NHLS
- NPIC
- FDA
- WWW.GOV.UK

Thank You

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