

## Healthy Hand Hygiene Resources

Resource	Availability	Cost
<b>Teaching Modules</b>		
<b>Just Wash 'Em</b> <ul style="list-style-type: none"> <li>• For preschool to grade 6</li> <li>• Includes a video</li> </ul>	CHICA Canada 1-866-999-7111 <a href="http://www.chica.org">www.chica.org</a>	YES
<b>Healthy Habits for Happy Healthy Kids</b> <ul style="list-style-type: none"> <li>• For kindergarten to grade 2</li> <li>• This kit discusses the importance of hygiene</li> </ul>	The Canadian Institute of Child Health 613-230-8838 <a href="http://www.cich.ca">www.cich.ca</a>	YES
<b>"Fight Bac"</b> <ul style="list-style-type: none"> <li>• Program for grades 4 to 7</li> <li>• This safe food handling module has a component dealing with germs and handwashing</li> </ul>	The Canadian Partnership for Consumer Food Safety Education 1-905-608-9066 <a href="http://www.canfightbac.org">www.canfightbac.org</a>	YES (on some items)
<b>Posters</b>		
<b>Handwashing Poster</b> <ul style="list-style-type: none"> <li>• A detailed 11-step handwashing poster and 8-step hand sanitizer poster</li> </ul>	Ontario Ministry of Health and Long-Term Care To order: 1-800-268-1153 (or 1154) English: catalogue #2439009 French: catalogue #3438886 <a href="http://www.health.gov.on.ca/english/public/pub/pubhealth/pdf/handwash_tech.pdf">www.health.gov.on.ca/english/public/pub/pubhealth/pdf/handwash_tech.pdf</a>	NO

## Visual Aids

<p><b>Glo Germ UV Handwashing Unit</b></p> <ul style="list-style-type: none"> <li>• Gives a visual demonstration to show when improper handwashing has taken place</li> <li>• The ingredients in the 'Glo Germ Potion' cast a revealing glow when exposed to standard UV light</li> <li>• Includes Glo Germ Potion and an ultraviolet unit</li> </ul>	<p>Region of Peel—Public Health 905-799-7700 peelregion.ca</p> <p>www.glogerm.com</p>	<p>NO</p>
<p><b>Stickers and Magnets</b></p>	<ul style="list-style-type: none"> <li>• CHICA-Canada 1-866-999-7111 www.chica.org</li> <li>• The Canadian Partnership for Consumer Food Safety Education 1-905-608-9066 www.canfightbac.org</li> </ul>	<p>YES</p> <p>YES</p>
<p><b>The 15-Second Challenge Stickers</b></p> <ul style="list-style-type: none"> <li>• Download a template for stickers to print out on labels</li> <li>• Download a template for the rules of a school-wide poster, story and poetry contest</li> <li>• Download handout to print out</li> </ul>	<p>Canadian Consumer Specialty Products Association (CCSPA) www.healthycleaning101.org</p>	<p>NO</p>

<b>Other Products</b>		
<p><b>Infection Control Products</b></p> <ul style="list-style-type: none"> <li>• Handwashing educational material and products, UV products, stamp and ink pad sets, buttons, posters, books</li> <li>• Available in English</li> </ul>	<ul style="list-style-type: none"> <li>• Brevis Corporation (American company) 1-800-383-3377 www.brevis.com</li> <li>• Vernacare Inc. (Canadian distributor for Brevis) 1-800-268-2422 www.vernacare.com</li> <li>• Marlatek 1-800-909-3507 www.germwise.com</li> </ul>	<p>YES</p> <p>YES</p> <p>YES</p>

Region of Peel—Public Health Hand Hygiene Resources

Visit [www.schoolhealth101.ca](http://www.schoolhealth101.ca) for hand hygiene resources you can download and use in your school and classroom.

# MATERIALS SAFETY DATA SHEET

## GLO GERM POWDER

Glo Germ Company  
PO Box 537  
Moab, Utah 84532

Emergency & Information Telephone Numbers  
1-800-842-6622

May 11, 2006

**Introduction** The Glo Germ Powder is 100% synthetic Organic Colorant A-594-5 (Blaze Orange or Invisible Blue are the two available colors. The following information applies to both colors). The Glo Germ Powder is not diluted with any inert material. Therefore it is highly concentrated. The plastic particles are 5 microns and smaller. When the powder is 'puffed' or thrown into the air like dust, it is a lung irritant. The Glo Germ Company strongly recommends minimizing dust or powder in the air.

### Section I – Product Information

Product code: A-594-5 NFPA Ratings H F R  
Product class: Synthetic Organic Colorant 1 1 0  
Product CAS: Mixture

### Section II – Hazardous Ingredients

No hazardous ingredients known at this time

### Section III – Physical Data

Boiling range:	none	Vapor density:	non-volatile
Evap. rate:	non-volatile (Volatiles vol. % = 0, Wgt % = 0)	Liquid density:	heavier than water
Appearance:	colorless powder	Weight per gallon:	11.41 pounds
V.O.C.:	see section IX		

### Section IV – Fire and Explosion Hazard Data

Flammability Class:	NA	Flash Point:	None	F LEL:	None	UEL:	None
Extinguishing media:	Based on the NFPA guide for class A fires, use dry chemical, water or another suitable extinguishing agent. For large fires, use water spray or fog, thoroughly drenching the burning area.						
Special firefighting procedures:	Clear area of personnel. Approach upwind. Wear self-contained breathing apparatus.						
Unusual fire and explosion hazards:	improper handling may lead to dust cloud formation, which, as with any organic compound, is an explosion hazard.						

### Section V – Health Effect Information

Eye contact: Minimal irritation upon contact.  
Skin contact: Minimal irritation upon contact.  
Inhalation: Similar to nuisance dust. Avoid inhaling.

### Section VI – Emergency and First Aid

Eye contact: Flush with water for at least 15 minutes while holding eyelids open.  
Skin contact: Wash with soap and water. Implement good industrial hygiene.  
Inhalation: Remove victim to fresh air. Call a physician. Treat symptoms.  
Ingestion: Do not induce vomiting. Give victim plenty of water. Call a physician.

#### Section VII – Personal Health Protection

- Eye protection: Glasses or goggles recommended.
- Skin protection: Required only for sensitive individuals.
- Respiratory protection: In the case that levels above OSHA's PEL are present, use a NIOSH approved respirator.
- Ventilation: General ventilation for comfort conditioning is usually enough to maintain the dust within the nuisance limit of 5 mg/cu.m.

#### Section VIII – Reactivity Data

- Stability: Stable
- Hazardous polymerization: Will not occur
- Incompatibility: Avoid contact with strong oxidizers (i.e., chlorine, peroxides, chromate, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions, and the release of toxic fumes.
- Conditions to avoid: Excessive dust in the vicinity of electrical or other spark generating equipment should be avoided, as should extremely warm temperatures.
- Hazardous decomposition products: The fumes and smoke released contain oxides of carbon, sulfur, and nitrogen, which are highly toxic. Do not breath smoke or fumes. Wear suitable protective equipment.

#### Section IX – Spill or Leak Procedures

This product is not defined as a hazardous waste under EPA 40 CFR 261. Sweep up and dispose of substance as any dust or dirt should any be spilled or leak.

#### Section X – Regulatory Information

- Federal: OSHA Hazard Communication Rule, 29 CFR 1910.1200: See Section II for Hazardous Ingredients as defined.
- This product contains no ingredients covered by the Clean Water Act.  
Product is not a regulated material under CERCLA/Superfund Amendments and Reauthorization Act (Title III) 40 CFR 117, 302. Notification of spills is not required.  
This product does not contain an ozone depleting substance (ODS) nor was it manufactured with them.
- State: This product does not contain ingredients listed on the Michigan Critical Materials List.

#### Section XI – Transportation Information

Synthetic Organic Colorant 1 1 0, powder

# MATERIALS SAFETY DATA SHEET

## GLO GERM LIQUID

Glo Germ Company  
PO Box 537  
Moab, Utah 84532

Emergency & Information Telephone Numbers  
1-800-842-6622

May 11, 2006

**Introduction** The Glo Germ Liquid is composed of 85% USP Mineral oil, (described below) and 15% Glo Germ powder, (Blaze Orange) as described on the Glo Germ Powder MSDS. The powder is held in suspension and is not soluble. At high temperatures (over 150F) the plastic particles will begin to melt and will adhere to any surface in contact. Cleaning of cloth with Glo Germ liquid or Glo Germ powder stains should be in lukewarm or cold water. Hot water will 'set' the stain.

### Section I – Product Identification

Common name: **USP White Mineral Oil**  
Product number: 3023382 NFPA Ratings H F R  
Product name: Drakeol ® 19 mineral oil USP 0 1 0  
Product case: 8042-47-5  
Producer: Van Waters & Rogers

### Section II – Hazardous Ingredients

No hazardous ingredients present

### Section III – Ingredients

White mineral oil percentage: 100%  
Hazards in blend: none  
Component Exposure Limits: OSHA, PEL, ACGIG TLV Unites: No limit

### Section IV – Health Effect Information

Eye contact: Minimal irritation upon contact.  
Skin contact: Single or repeated and prolonged contact is not expected to result in skin irritation. However, chemicals of similar composition cause minimal or slight dermal irritation when applied to the skin of laboratory animals.  
Inhalation: Product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Aerosolization or misting of product should be prevented. The permissible exposure limit (PEL) and threshold limit value (TLV) for this product as oil mist is 5 MG/M3. Exposures below specified limit appear to pose no significant health risk. The short-term exposure limit for this product as an oil mist is 10 MG/ M3. Refer to Section V below.  
Ingestion: Ingestion is reasonably non-toxic unless aspiration occurs. As this product possesses laxative properties, ingestion may result in abdominal cramps and diarrhoea.

## Section V – Health Data

Exposure to a large dose or repeated small doses of mineral oil by inhalation, aspiration, or ingestion leading to aspiration can lead to lipio pneumonia or lipio granuloma, which are low-grade, persistent, localized tissue reactions which are not fatal. The most common symptoms associated with lipio pneumonia or lipio granuloma are shortness of breath and cough. The International Agency for Research on Cancer (IARC) has concluded that highly refined mineral oils are group 3 substances, “NOT CLASSIFIABLE AS TO THEIR CARCINOGENICITY TO HUMANS,” based on inadequate human and animal evidence. In addition, IARC has concluded that there is no evidence for the carcinogenicity to experimental animals of white oils when administered by routes other than by intraperitoneal injection. This substance is not carcinogenic according to the OSHA hazard communication standard.

## Section VI – Emergency and First Aid Procedures

Eye contact:	Flush eyes with large quantities of water immediately and continue to flush until discomfort is eased. If liquid is hot, treat affected area for thermal burns and take victim to the hospital immediately.
Skin contact:	Remove clothing that has come into contact with substance. If liquid is hot, immerse affected area in cool water. If serious burns have been sustained, take victim to a hospital immediately.
Inhalation:	Due to its low vapor pressure, material is not expected to present an inhalation exposure at ambient conditions.
Ingestion:	May act as a laxative. Do not induce vomiting.

## Section VII – Personal Health Protection

Eye protection:	Not required for normal use.
Skin protection:	Not required for single use of short duration. For prolonged or repeated exposure, use impervious clothing over those parts of the body subject to exposure. If handling heated material, use insulated protective clothing (boots, gloves, aprons, etc.)
Respiratory	Not required for normal use. If use of material results in vapor or mist, protection: use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
Ventilation:	Upon generation of vapor or mist, adequate ventilation in accordance with good engineering practice is necessary.

## Section VIII – Transportation Information

White Mineral oil, Liquid, Synthetic Organic Colorant 1 1 0

# MATERIALS SAFETY DATA SHEET

## GLO-GERM GEL

Glo-Germ Company  
PO Box 537  
Moab, Utah 84532

Emergency & Information Telephone Numbers  
1-800-424-9300  
1-800-842-6622

May 11, 2006

### Section I – Product Identification

Producer: Liddell NFPA Ratings H F R 0 1 0

### Section II – Hazardous Ingredients

No hazardous ingredients present

### Section III – Ingredients

White lotion percentage: 100%  
Hazards in blend: none  
Component Exposure Limits: OSHA, PEL, ACGIG TLV Unites: No limit

### Section IV – Health Effect Information

Eye contact: Minimal irritation upon contact.  
Skin contact: Single or repeated and prolonged contact is not expected to result in skin irritation. However, chemicals of similar composition cause minimal or slight dermal irritation when applied to the skin of laboratory animals.  
Inhalation: Product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Aerosolization or misting of product should be prevented. The permissible exposure limit (PEL) and threshold limit value (TLV) for this product as oil mist is 5 MG/M3. Exposures below specified limit appear to pose no significant health risk. The short-term exposure limit for this product as an oil mist is 10MG/M3. Refer to Section V below.  
Ingestion: Ingestion is reasonably non-toxic unless aspiration occurs. As this product possesses laxative properties, ingestion may result in abdominal cramps and diarrhoea.

### Section V – Health Data

Exposure to a large dose or repeated small doses of mineral oil by inhalation, aspiration, or ingestion leading to aspiration can lead to lipio pneumonia or lipio granuloma, which is lowgrade, persistent, localized tissue reactions which are not fatal. The most common symptoms associated with lipio pneumonia or lipio granuloma are shortness of breath and cough. The International Agency for Research on Cancer (IARC) has concluded that highly refined mineral oils are group 3 substances, “NOT CLASSIFIABLE AS TO THEIR CARCINOGENICITY TO HUMANS,” based on inadequate human and animal evidence. In addition, IARC has concluded that there is no evidence for the carcinogenicity to experimental animals of white oils when administered by routes other than by intraperitoneal injection. This substance is not carcinogenic according to the OSHA hazard communication standard.

## Section VI – Emergency and First Aid Procedures

- Eye contact: Flush eyes with large quantities of water immediately and continue to flush until discomfort is eased. If liquid is hot, treat affected area for thermal burns and take victim to the hospital immediately.
- Skin contact: Remove clothing that has come into contact with substance. If liquid is hot, immerse affected area in cool water. If serious burns have been sustained, take victim to a hospital immediately.
- Inhalation: Due to its low vapor pressure, material is not expected to present an inhalation exposure at ambient conditions.
- Ingestion: May act as a laxative. Do not induce vomiting.

## Section VII – Personal Health Protection

- Eye protection: Not required for normal use.
- Skin protection: Not required for single use of short duration. For prolonged or repeated exposure, use impervious clothing over those parts of the body subject to exposure. If handling heated material, use insulated protective clothing (boots, gloves, aprons, etc.)
- Respiratory protection: Not required for normal use. If use of material results in vapor or mist, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
- Ventilation: Upon generation of vapor or mist, adequate ventilation in accordance with good engineering practice is necessary.

## Section VIII – Transportation Information

Liquid, white lotion, Synthetic Organic Colorant 1 1 0

# MATERIALS SAFETY DATA SHEET

## ULTRAVIOLET BLACK LIGHT

**4 to 18 watts**

Glo Germ Company

PO Box 189

Moab, Utah 84532

Emergency & Information Telephone Number

1-800-842-6622

March 7, 2006

Long-wave, **UV-A**, ultraviolet light, with wavelengths at 3500 to 3800 angstrom units, is totally harmless to skin and eyes. It causes no changes in the body and requires no protective precautions in normal use as recommended by the Glo Germ Company.

Short-wave, **UV-B**, ultraviolet light, with wavelengths at 2537 angstrom units, does cause chemical changes in the body, such as the formation of vitamin D. With prolonged exposure, reddening of the skin and inflammation of the eyes may occur. While these are uncomfortable effects, they are temporary and no permanent damage will result. Ordinary glass or plastic will completely filter out short-wave ultraviolet light.

UV-A long-wave light within the range outlined above is relatively safe. However, prolonged exposure of the black light to the eyes may cause eye irritation. Symptoms, which can include tearing of the eyes, a burning or painful sensation in the eyes, sensitivity to light, or a sensation like that experienced when a foreign object is lodged in the eye, may not be present until several hours after exposure. To reduce likelihood of experiencing adverse symptoms, individuals should properly shield themselves and use the black lights only as directed. The above assumes a healthy eye and no corrective lenses. Therefore, the Glo Germ Company recommends that the lamp never be held within **6 inches** of the eyes and do not look into the bulb at close range longer than three minutes. This lamp should be used under adult supervision.

Exposure to UV lights should be limited. Black lights should not be tampered with, nor should their shields or lenses be removed. The Glo Germ Company uses black lights to detect "simulated" germs on hands and surfaces. Therefore, hands and surfaces only should be exposed to the light. Individuals should not look directly at the black light.

Please Note: Individuals sensitive to UV light, taking photosensitizing medications, or those who lack optic lenses or who may have other abnormal eye conditions may not be adequately protected against exposure to artificial UV light and should avoid it altogether.

Ultra Shortwave, **UV-C** radiation has been known to cause blindness, 'blind spots' in the eyes, sun-burning of the skin, and skin cancer. For these reasons, Glo-Germ does not use short-wave, UV-C, lights. These lamps are used to disinfect objects, to sterilize water or other liquids, in tanning booths, in special laboratory applications, and is the main ultraviolet wave length from the Sun and welder torches. The wavelength is between 2000 and 2500 angstrom units

## Web sites for Teachers: Related to Healthy Hand Hygiene

[www.4children.org](http://www.4children.org): Action Alliance for Children

[www.accessexcellence.org](http://www.accessexcellence.org): Microbiology Professor at Skyline College, U.S.A.

[www.asm.org](http://www.asm.org): American Society for Microbiology

[www.brevis.com](http://www.brevis.com): Brevis Corporation

[www.canfightbac.org](http://www.canfightbac.org): Canadian Partnership for Consumer Food Safety

[www.cdc.gov](http://www.cdc.gov): Centers for Disease Control and Prevention (CDC)

[www.cleaning101.com](http://www.cleaning101.com): The Soap and Detergent Association

[www.chica.org](http://www.chica.org): Community and Hospital Infection Control Association,  
(CHICA-Canada)

[ottawa.ca/health](http://ottawa.ca/health): City of Ottawa (Ottawa Public Health)

[www.gojo.com](http://www.gojo.com): GOJO Industries

[www.germwise.com](http://www.germwise.com): Marlatek Inc., Health Care, Educational and Food Services

[www.glogerm.com](http://www.glogerm.com): GloGerm Company

[www.hc-sc.gc.ca](http://www.hc-sc.gc.ca): Health Canada

[www.healthycleaning101.org](http://www.healthycleaning101.org): Canadian Consumers Speciality Products Association

[www.itsasnap.org](http://www.itsasnap.org): Healthy Schools, Healthy People.

[www.health.gov.on.ca/english/public/program/pubhealth/handwashing/handwashing\\_mn.html](http://www.health.gov.on.ca/english/public/program/pubhealth/handwashing/handwashing_mn.html):  
Ministry of Health and Long - Term Care

[www.peelregion.ca](http://www.peelregion.ca): Region of Peel-Public Health

[www.simcoehealth.org/Topics/Handwashing/activities.asp](http://www.simcoehealth.org/Topics/Handwashing/activities.asp): Simcoe Health Unit

[www.slvhealth.org](http://www.slvhealth.org): Salt Lake Valley Health Department

[www.vernacare.com](http://www.vernacare.com): Vernacare

[www.wdghu.org](http://www.wdghu.org): Wellington-Dufferin-Guelph Health Unit

Disclaimer : The above Web sites contain information created, published, maintained or otherwise posted by institutions and organizations independent of the Region of Peel. No guarantee can be made as to accuracy or availability of these websites.

## References

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4. Centers for Disease Control and Prevention (CDC). *Healthy Habits Keep You Well*. Retrieved December 2004 from [www.cdc.gov/germstopper](http://www.cdc.gov/germstopper)
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## Literature Review

### GENERAL ARTICLES

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## ELEMENTARY SCHOOL ABSENTEEISM ARTICLES

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Kimel LS. Handwashing education can decrease illness absenteeism. *Journal of School Nursing* 12(2):14-6, 18, 1996.

## GLOSSARY OF TERMS

### ALCOHOL-BASED HAND SANITIZERS

Alcohol-based hand sanitizers are hand disinfectants that are available as rubs, gels or rinses. It is recommended that these hand sanitizers contain at least 60-90 per cent alcohol in order to be effective for removing germs that cause illness. These products are widely used in health care settings after washing hands or in situations when water is not available.

### ANTIBACTERIAL SOAP

Antibacterial soaps are those containing antibacterial agents, typically in only very small levels.

### BACTERIA (singular: bacterium)

A microscopic organism that is specific in shape (spherical, rod-shaped, spiral or comma-shaped), and that is capable of causing disease. Not all types of bacteria cause infection. The nature, severity and outcome of any infection caused by a bacterium are characteristic of that type of bacterium.

### COMMON COLD

An acute disease of the upper respiratory tract marked by inflammation of the mucous membranes of the nose, throat, eyes, and ears. The common cold is a contagious illness caused by a number of different types of viruses. Because of the great number of viruses that can cause a cold, the body never builds up resistance (immunity) against all of them. For this reason, colds are a frequent and recurring problem.

### COMMUNICABLE DISEASE

An infection that spreads from one person to another by direct contact with the affected person, by an individual's discharges (droplet spread), or by indirect means (such as contaminated objects).

### DIRECT CONTACT - spread of germs

The spread of germs by direct contact results from close person-to-person contact when droplets from the cough or sneeze of an infected person are propelled a short distance (generally up to 3 feet) through the air and deposited on the mucous membranes of the mouth, nose or eyes of persons who are nearby.

### DISEASE

A specific illness, condition or disorder characterized by a recognizable set of signs and symptoms, attributable to heredity, infection, diet or environment.

### INFLUENZA (FLU)

The flu is a contagious respiratory illness caused by influenza viruses. It usually starts suddenly causing mild to severe illness, and at times can lead to death.

The symptoms are similar to a lot of different illnesses, including the common cold:

- Fever (usually high)
- Headache
- Tiredness (can be extreme)
- Sore throat
- Runny or stuff nose
- Body aches
- Diarrhea and vomiting can also occur, but are more common in children

While most healthy people recover from the flu without complications, some people, such as older people, young children, and people with certain health conditions, are at a higher risk for serious complications from the flu.

### GERMS

Microscopic organisms that can cause disease. They include viruses and some bacteria.

### HAND CLEANING

The act of removing germs from hands, including handwashing and/or using hand sanitizers.

### HANDWASHING

The act of using soap and running water to remove germs from hands.

### HEALTHY HAND HYGIENE

For the purpose of this initiative, healthy hand hygiene refers to all practices that help to reduce the spread of germs that can cause illness. This includes handwashing, the use of alcohol-based hand sanitizers, coughing or sneezing into a tissue or your upper arm, not into your hands, and keeping your hands away from your face.

### INDIRECT CONTACT - spread of germs

The spread of germs by indirect contact occurs when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, nose or eye(s). Germs can live up to 48 hours on inanimate surfaces such as pens, pencils, keyboards, doorknobs, handrails, tables, toys and grocery carts!

### INFECTION

The invasion and multiplication of micro-organisms in the body.

### INFECTIOUS DISEASE

A disease caused by the entrance into the body of organisms (such as bacteria, protozoans, fungi or viruses), which grow and multiply there.

## MATERIAL SAFETY DATA SHEETS (MSDS)

Sheets designed to provide both workers and emergency personnel with the proper procedures for handling or working with a particular substance. MSDS's include information such as physical data (melting point, boiling point, flash point etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill/leak procedures. These are of particular use if a spill or other accident occurs. An MSDS reflects the hazards of working with the material in an occupational fashion.

## MICRO-ORGANISM

A tiny living organism, invisible to the naked eye, which may have the ability to cause disease. Bacteria and viruses are two types of micro-organisms.

## OUTBREAK

The occurrence of a large number of cases of a disease in a short period of time.

## PANDEMIC INFLUENZA

A strain of flu that affects humans worldwide, and spreads rapidly. A pandemic influenza is a 'new' type of virus for which we will have no vaccination at the time of the outbreak, making the spread of the virus more difficult to control.

Pandemics typically occur every 50 years or so.

## RESPIRATORY INFECTION

- A respiratory infection is an illness commonly caused by viruses or bacteria and is characterized by symptoms of coughing, sneezing, runny nose, headache, chills, tiredness, fever and/or sore muscles.
- Respiratory infections can lead to other illnesses such as throat infection, ear infection, sinus infection, tonsillitis and pneumonia.
- Respiratory infections often exacerbate existing health conditions such as asthma.
- These infections can be spread by direct contact (large droplets or airborne particles such as during a cough or a sneeze), or indirect contact (contaminated objects or surfaces such as doorknobs, handrails and keyboards).<sup>9</sup>

## SARS (Severe Acute Respiratory Syndrome)

A new and severe form of a respiratory infection, first reported in February 2003. SARS is thought to be transmitted most readily by respiratory droplets (coughing, sneezing, or by hand transmission). The illness usually begins with a high fever (measured temperature greater than 100.4°F [ $>38.0^{\circ}\text{C}$ ]). The fever is sometimes associated with chills or other symptoms, including headache, general feeling of discomfort and body aches. Some people also experience mild respiratory symptoms at the outset. Diarrhea is seen in approximately 10 to 20 per cent of patients. After two to seven days, SARS patients may develop a dry,

non-productive cough that might be accompanied by or progress to a condition in which the oxygen levels in the blood are low (hypoxia). In 10 to 20 per cent of cases patients require mechanical ventilation. Most patients develop pneumonia. In total, 8,098 people worldwide became sick with SARS during the 2003 outbreak. Of these, 774 died.

### "SUPERBUGS"

A term commonly used to refer to bacteria that have become resistant to antibiotics.

### VISIBLY SOILED HANDS

Hands showing visible dirt such as soil, blood or other body fluids (e.g. fecal material or urine).

### VIRUS

A minute micro-organism much smaller than a bacterium which replicates only within animals or humans. More than 200 viruses have been identified as capable of causing disease in humans. Viruses are never beneficial to humans. The nature of a virus is that it can change very slightly in structure, thereby creating a new virus for which a person may not have immunity.

### WORLD HEALTH ORGANIZATION (WHO)

The World Health Organization is the United Nations' specialized agency for health. It was established on April 7, 1948. WHO's objective is the attainment by all peoples of the highest possible level of health. Health is defined in WHO's constitution as a state of complete physical, emotional, mental and social well-being, and not merely the absence of disease or infirmity.