Notice of the General Office of the National Health and Health Commission on Printing and Distributing Guidelines for the Use of Disinfectants

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Provinces, autonomous regions, municipalities, and Xinjiang Production and Construction Corps Health and Health Committee, China Centers for Disease Control and Prevention: In

order to scientifically guide the public in the correct use of disinfectants and give full play to the effective role of disinfectants in the prevention and control of the new crown pneumonia epidemic, we organize a professional committee on disinfection standards Prepared "Guidelines for the Use of Disinfectants." You are now issued, please refer to the implementation.

General Office of National Health Commission
February 18, 2020

(Information disclosure: Active disclosure)

Disinfectant Use Guide

February 2020

Foreword

The new coronavirus belongs to the beta genus Coronavirus, and its genetic characteristics are significantly different from SARSr-CoV and MERSr-CoV. There is currently no direct data on the resistance of new coronaviruses. Based on previous knowledge of coronaviruses, all classical disinfection methods should be able to kill coronaviruses. When the SARS epidemic broke out in 2003, the World Health Organization only mentioned in the relevant

guidelines that ultraviolet rays have a poor killing effect on coronaviruses. For this new type of coronavirus, only chlorhexidine was proposed to be invalid.

Disinfectant is a preparation used to kill microorganisms on the transmission medium to meet the requirements of disinfection or sterilization. According to the active ingredients, it can be divided into alcohol disinfectants, chlorine disinfectants, iodine disinfectants, peroxide disinfectants, guanidine disinfectants, phenol disinfectants, quaternary ammonium disinfectants and so on. Surface disinfectants, medical device disinfectants, air disinfectants, hand disinfectants, skin disinfectants, mucosal disinfectants, epidemic disinfectants, etc .; can be divided into high-level disinfectants and medium-level disinfectants according to their ability to kill microorganisms Agents and low-level disinfectants.

During the prevention and control of the new coronavirus pneumonia epidemic, disinfectants should be used reasonably, following the "five-strength and seven-inappropriateness" to truly cut off the transmission route and control the spread of infectious diseases. "Five enhancements": Isolate the ward and the patient's residence for disinfection at any time and terminally; increase the frequency of disinfection on the surface of environmental objects in densely populated places such as hospitals, airports, stations; strengthen the cleaning and disinfection of door handles and elevator buttons with high frequency contact; Garbage, feces and sewage are collected and harmlessly treated; good personal hand hygiene. "Seven inappropriate": It is not suitable for large-scale disinfection of outdoor environment; it is not suitable for air disinfection of external environment; it is not suitable to use disinfectant (powder) to disinfect personnel directly; it is not appropriate to add disinfection to environments such as ponds, reservoirs, artificial lakes, etc. Disinfectants (powders) should not be used for disinfection; air (space) should not be disinfected under human conditions; glutaraldehyde should not be used for wiping and spray disinfection of the environment; high-concentration chlorine-containing disinfectants (effective chlorine concentrations greater than 1000mg / L) for preventive disinfection.

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1 Alcohol Disinfectants

1.1 Active Ingredients: The

content of ethanol is 70% to 80% (v / v), and alcohol-containing hand disinfectants> 60% (v / v). For compound products, please refer to the product manual.

1.2 application

is mainly used for disinfection of hands and skin, it can also be used to disinfect the surface of smaller objects.

1.3 How to use

: Sanitize hand disinfection: Spray the hand or rub the hand evenly 1 or 2 times, acting for 1min.

Surgical hand disinfection: Wipe 2 times for 3min.

Skin disinfection: Rub the skin surface 2 times for 3 minutes.

Disinfect the surface of small objects: wipe the surface of the object 2 times for 3 minutes.

1.4 Precautions:

If using alcohol alone for hand disinfection, it is recommended to use hand cream after disinfection.

Topical disinfectants should not be taken orally and should be kept out of reach of children.

Flammable, keep away from fire.

Use with caution to those who are allergic to alcohol.

Protect from light and store in a cool, dry, ventilated place.

Not suitable for disinfecting the surface of fat-soluble objects, not for air disinfection.

2 Chlorine-containing disinfectant

2.1 The active ingredient

is calculated as available chlorine, the content is expressed in mg / L or%, bleaching powder ≥20%, sodium dichloroisocyanurate ≥55%, 84 disinfectant according to the product instruction, it is usually 2% ~ 5 %.

2.2 Scope of

application: Suitable for disinfection of contaminated objects such as surfaces, fabrics, water, fruits, vegetables, food and drink.

In addition to the above uses, hypochlorous acid disinfectant can also be used to disinfect indoor air, the surface of secondary water supply equipment facilities, hands, skin and mucous membranes.

2.3 How to use:

When sterilizing the surface of an object, use a concentration of 500mg / L; when disinfecting the epidemic source, use a concentration of 1000mg / L on the surface of the object; when there are obvious pollutants, use a concentration of 10,000mg / L; Product Manual.

2.4 Precautions

External disinfectants should not be taken orally and should be kept out of reach of children.

Masks and gloves should be worn when preparing and dispensing high-concentration disinfectants; gloves should be worn during use to avoid contact with the skin. If accidentally splashed into the eyes, rinse immediately with water, and if serious, consult a doctor.

It has a corrosive effect on metal and bleaching and fading effect on fabric. Use with caution on metal and colored fabrics.

Strong oxidants must not come into contact with flammable materials and should be kept away from fire sources.

Store in a cool, dry place and keep in a sealed place. Do not store and transport with reducing substances.

Packaging should be marked with the corresponding safety warning signs.

Use according to the scope of use, method of use, validity period and safety test results indicated in the specific product manual.

3 Chlorine Dioxide Disinfectant

3.1 Active ingredient: The content

of chlorine dioxide after activation is ≥2000mg / L, no need to activate the product according to the product manual.

3.2 Application Scope: It is

suitable for disinfection of water (drinking water, hospital sewage), surface of objects, food and drinking utensils, food processing tools and equipment, fruits and vegetables, medical equipment (including endoscopes) and air.

3.3 How to use When

disinfecting the surface of an object, use a concentration of 50mg / L ~ 100mg / L for 10min ~ 15min; for disinfection of drinking water, use a concentration of 1mg / L ~ 2mg / L for 15min ~ 30min; when disinfecting hospital sewage, use The concentration is 20mg / L ~ 40mg / L, and the action is 30min ~ 60min. When the indoor air is disinfected, follow the product instructions.

3.4 Precautions

External disinfectants should not be taken orally and should be kept out of reach of children.

It should not be mixed with other disinfectants, alkalis or organic substances.

This product has a bleaching effect; it is corrosive to metals.

Wear gloves when using to avoid contacting the skin with high concentration of disinfectant and inhalation of the respiratory tract. If accidentally splashed into the eyes, rinse immediately with water. Seek medical attention in severe cases.

4 Peroxide disinfectants

4.1 Active ingredients

氢 Hydrogen peroxide disinfectants: hydrogen peroxide (with H_2O_2) Mass fraction 3% ~ 6%.

Peroxyacetic acid disinfectant: The mass fraction of peroxyacetic acid (calculated as $C_2H_4O_3$) is 15% to 21%.

4.2 Application scope: It is

suitable for disinfecting the surface of objects, indoor air, skin and wounds, and corrosion-resistant medical equipment.

4.3 Use method

Surface of the object: 0.1% ~ 0.2% peroxyacetic acid or 3% hydrogen peroxide, spray or soak for 30 minutes, then rinse with water to remove residual disinfectant.

Indoor air disinfection: 0.2% peroxyacetic acid or 3% hydrogen peroxide, using aerosol spray method, the dosage is calculated according to 10mL / m^3 ~ 20mL / m^3 (1g / m^3), ventilation and ventilation after 60min disinfection; also It can be heated and fumigated with 15% peroxyacetic acid, and the dosage is calculated as 7mL / $m^{3.\ The}$ fumigation effect should be ventilated for 1-2 hours.

Skin wound disinfection: 3% hydrogen peroxide disinfection solution, directly rinse the skin surface for 3 to 5 minutes.

Medical device disinfection: high-level disinfection of corrosion-resistant medical devices, 6% hydrogen peroxide immersion for 120min, or 0.5% peroxyacetic acid for 10min. After disinfection, rinse with sterile water to remove residual disinfectant.

4.4 Precautions

Liquid peroxide disinfectants are corrosive, irritating to the eyes, mucous membranes, and skin, and there is a danger of burns. If accidentally contacted, rinse with plenty of water and seek medical treatment in a timely manner.

Wear personal protective equipment when performing disinfection operations.

If the container breaks or leaks, it should be washed with plenty of water, or the residual liquid should be absorbed with sand or inert absorbent, and the corresponding safety protection measures should be taken.

It is flammable and explosive. It will cause a fire and explosion when it is exposed to open flames and high heat. If it comes in contact with a reducing

agent, it will explode when it encounters metal powder.

5 Iodine-containing disinfectant

5.1 Active ingredient

iodine tincture: Effective iodine 18g / L ~ 22g / L, ethanol 40% ~ 50%.

Iodine volts: Available iodine 2g / L ~ 10g / L.

5.2 Application scope

: Iodine: It is suitable for disinfecting the skin of the surgical site, injection and puncture sites, and the umbilical cord of the newborn. It is not suitable for disinfecting the skin of mucous membranes and sensitive areas.

Iodine: suitable for disinfection of surgical hands and forearms, disinfection of mucous membranes, etc.

5.3 Method of use:

Iodine: Dip this product with a sterile cotton swab or sterile gauze, wipe the skin on the disinfected part more than 2 times, and then wipe it with 75% medical ethanol with a cotton swab or sterile gauze. Use effective iodine 18g / L ~ 22g / L, action time 1 ~ 3min.

Iodine:

disinfection of the hands and forearms before surgery: on the basis of conventional brushing, use a sterile gauze to dip and use the concentration of iodophor to wipe the skin from the fingertips to the forearm and the lower third of the upper arm; Dip the bacteria brush into the skin of the forearm and lower third of the forearm and upper arm with a concentrated iodine brush, then wipe dry. Use effective iodine 2g / L ~ 10g / L, action time 3min ~ 5min.

Mucosal flushing and disinfection: Iodine diluent containing 250mg / L to 500mg / L of effective iodine is used to directly rinse or wipe the disinfected part.

5.4 Precautions:

External disinfection solution is prohibited.

Keep out of reach of children.

Use with caution to those allergic to iodine.

Sealed, protected from light, stored in a cool, ventilated place.

6 Bromine-containing disinfectant

6.1 The active ingredient

bromochloro-5,5-dimethylhydantoin, with a mass fraction of 92% to 95%,

and an effective halogen (calculated as Cl) mass fraction of 54% to 56%.

1,3-dibromo-5,5-dimethylhydantoin, mass fraction of 96% to 99%, effective bromine (calculated as Br) mass fraction of 107% to 111%.

6.2 Application: It is

suitable for disinfecting the surface of objects.

6.3 Method of use: The

surface of the object is usually immersed, wiped or sprayed. Total effective halogen of bromochloro-5,5-dimethylhydantoin 200mg / L ~ 400mg / L for 15min-20min; effective bromine of 1,3-dibromo-5,5-dimethylhydantoin 400mg / L ~ 500mg / L for 10min ~ 20min.

6.4 Precautions:

Bromine-containing disinfectants are external products and must not be taken orally.

This product is a strong oxidant. Contact with flammable materials can cause no flame to spontaneously ignite. Keep away from flammable materials and fire sources.

It is forbidden to co-storage and transport with the reduction to prevent explosion.

Products without added corrosion inhibitors are corrosive to metals.

It has bleaching and fading effect on colored fabrics.

This product has an irritating odor, and there is a danger of burns to the eyes, mucous membranes, and skin. Contact with the human body is strictly prohibited. If accidentally contacted, they should be rinsed with plenty of water in time, and sent to hospital for treatment in severe cases.

Operators should wear protective equipment such as protective glasses and rubber gloves.

7 Phenol disinfectant

7.1 Active ingredients:

According to product instructions.

7.2 Application: It is

suitable for disinfecting the surface of objects and fabrics.

7.3 How to use

The surface of the object and fabric are wiped and disinfected with 1000mg / L ~ 2000mg / L of active ingredient for 15min ~ 30min.

7.4 Precautions

Phenol and cresol are toxic to the human body. When disinfecting the environment and the surface of the object, personal protection should be done. If a high concentration solution contacts the skin, it can be wiped off with ethanol or washed with plenty of water.

After the disinfection is finished, the surface of the treated object, the fabric and other objects should be wiped or washed with clean water to remove the residual disinfectant.

Can not be used for disinfection of bacterial spore-contaminated items, high- and middle-level disinfection of medical equipment, and disinfectants with phenol and cresol as the main bactericidal component are not suitable for disinfection of skin and mucous membranes.

8 Quaternary ammonium salt disinfectants

8.1 Active ingredients:

According to product instructions.

8.2 Application: It is

suitable for disinfection of the environment and the surface of the object (including fibers and fabrics).

Suitable for sanitary hand disinfection, disinfectant compounded with alcohol can be used for surgical hand disinfection.

8.3 Use method

: Disinfect the surface of the object: When there is no obvious pollutant, the concentration is 1000mg / L; when there is obvious pollutant, the concentration is 2000mg / L.

Hygiene hand disinfection: Use 1000mg / L for cleaning and 2000mg / L for contamination.

8.4 Precautions:

External disinfectants should not be taken orally. Keep out of reach of children.

Avoid contact with organics and antagonists. Do not use with soap or other anionic detergents, nor with iodine or peroxide (such as potassium permanganate, hydrogen peroxide, sulfa powder, etc.).

9 References

[1] "Sanitary Standards for Ethanol Disinfectants" (GB 26373-2010)

[2] "Hygienic Requirements for Chlorine Disinfectants" (GB / T 36758-2018)

[3] "Sanitary Standards for Chlorine Dioxide Disinfectants" (GB26366-2010)

[4] "Sanitary Standards for Peroxide Disinfectants" (GB 26371-2010)

[5] "Sanitary Standards for Iodine-containing Disinfectants" (GB 26368 - 2010)

[6] "Sanitary Standards for Bromine-containing Disinfectants" (GB26370-2010)

[7] "Hygienic Requirements for Phenolic Disinfectants" (GB 27947-2011)

[8] "Sanitary Standards for Quaternary Ammonium Disinfectants" (GB 26369-2010)

[9] "Hygienic Requirements for Disinfectants in Epidemic Sources" (GB 27953-2011)

[10] "Hygiene Requirements for Disinfectants on Common Object Surfaces" (GB 27952-2011)