COVID-19 CHEMICAL DISINFECTANT SAFETY INFORMATION

Updated June 24, 2020

The COVID-19 pandemic has caused an increase in the number of disinfection products used throughout UW departments. This document provides general information about EPA-registered disinfectants, such as potential health hazards and personal protective equipment recommendations, for the commonly used disinfectants at the UW.

Category	Chemical Disinfectant Base / Products	Potential Hazards	Controls
Alcohols	• Ethyl alcohol o Clorox 4 in One Disinfecting Spray Ready-to-Use • Isopropyl alcohol o Isopropyl Alcohol Antiseptic 75% Topical Solution, MM (Ready to Use) o Opti-Cide Surface Wipes o Powell PII Disinfectant Wipes o Super Sani Cloth Germicidal Wipe	• Highly flammable and could form explosive vapor/air mixtures. • May react violently with strong oxidants. • Alcohols may de-fat the skin and cause dermatitis. • Inhalation of concentrated alcohol vapor may cause irritation of the respiratory tract and effects on the central nervous system.	• Disposable nitrile gloves • Use in well-ventilated areas away from ignition sources • Wear long sleeve shirt and pants • Closed toe shoes

Aldehydes	• Formaldehyde • Paraformaldehyde • Glutaraldehyde • Ortho-phthalaldehyde (OPA)	• Formaldehyde in gas form is extremely flammable. It forms explosive mixtures with air. • It should only be used in well-ventilated areas. • The chemicals are irritating, toxic to humans upon contact or inhalation of high concentrations. • Glutaraldehyde and Formaldehyde are known sensitizing agents (may cause allergic reaction). • Formaldehyde is a known carcinogen.	• Disposable nitrile gloves for concentrations 10% or less • Medium or heavyweight nitrile, neoprene, natural rubber, or PVC gloves for concentrated solutions • Protective clothing to minimize skin contact • **EH&S recommends against using formaldehyde and glutaraldehyde based products for disinfection.**
Chlorine Compounds (Hypochlorites)	• Chlorine dioxide o Clidox-S o ProKure V RTU Solution • Calcium hypochlorite • Sodium dichloroisocyanurate o Brutab 6S • Sodium dichloro-S-triazinetrione o PURTABS disinfecting tabs • Sodium hypochlorite o 10% Bleach Solution o Avert Sporicidal Disinfectant Cleaner Ready-to-Use o Clorox Clean-Up Cleaner + Bleach	• Mixing hypochlorite with strong acids may result in violent chemical reactions that could release toxic gases. • React explosively with ammonia, amines, or reducing agents. • May cause skin irritation. Concentrated hypochlorite solutions can cause chemical burns of the skin. • May cause serious eye irritation.	• Disposable nitrile gloves • Safety glasses or goggles where splash potential exists • Do not mix with ammonia-based cleaners or disinfectants. • Perform a secondary water rinse to minimize surface damage.

	o Clorox Germicidal Bleach o Clorox Healthcare Fuzion Cleaner Disinfectant Ready-to-Use o Clorox Toilet Bowl Cleaner with Bleach Gel		
Oxidizing Agents	• Hydrogen peroxide o Accel TB/PREempt o Clorox Commercial Solutions Clorox Hydrogen Peroxide Disinfecting Cleaner o Clorox Healthcare HP Cleaner Disinfectant Wipes o Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant o Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant Wipes o Diversey Oxivir Tb o Diversey Oxivir Wipes o Ecolab Peroxide Multi Cleaner and Disinfectant o STERI-PEROX Wipes • Peroxyacetic Acid	• Concentrated peroxide solutions are reactive and explosive. • Irritants - may cause chemical burns of the skin and eyes when concentrated.	• Disposable nitrile gloves • Safety glasses or goggles where splash potential exists • Long sleeve shirt and long pants • Closed toe shoes
Phenols	• Cresol	• Phenols can cause skin and eye irritation.	• Disposable nitrile gloves

	• Hexachlorophene • Thymol o Bioesque Solutions Botanical Disinfectant Solution	• When phenol compounds are inhaled, ingested, or applied to the skin at high concentrations, the chemicals are harmful to humans.	• Safety glasses or goggles where splash potential exists • Protective clothing to minimize skin contact

Quaternary Ammonium	• Alkyl dimethyl benzyl ammonium chlorides
	  o 2XL Gym wipes/Care wipes/Force wipes
	  o 3M #41
	  o 3M #41 Ready-to-use
	  o 3M #5
	  o 3M #5 Ready-to-use
	  o 3M TB Quat Disinfectant RTU
	  o Brighton Professional Hepastat 256 Ready-to-use
	  o CaviCide and Envirocide
	  o Clorox Commercial Solutions Clorox Total 360 Disinfectant Cleaner1 Ready-to-use
	  o Clorox Disinfecting Bathroom Cleaner Ready-to-Use
	  o Diversey All Purpose Virex Disinfectant Cleaner
	  o Kennelsol
	  o Lysol Disinfecting Wipes
	  o Multi-Clean 64 Millenium Q
		• Contact dermatitis
		• May trigger asthma.
		• Eye and mucous membrane injury
		• Oral and gastrointestinal injuries from swallowing solutions
			• Adequate ventilation
			• Disposable nitrile gloves
			• Safety glasses or goggles where splash potential exists
			• Do not mix with bleach-based cleaners or other chlorine solutions.
			• Do not eat/drink without washing hands after use.
			• Long sleeve shirt and long pants
			• Closed toe shoes

	o PDI Sani-Cloth Disinfecting Wipes o QA Concentrated Solution o Renown Disinfecting Multi-Surface & Glass Cleaner Ready-to-use (Reno 2746) o Renown Fresh Citrus Disinfectant Cleaner (Reno 2903) o Simple Green d Pro Concentrate o ShockWave Concentrate o Staples SE66 Disinfectant o Super Sani Cloth Germicidal Wipe o US Chemical Lemon Cleaner Disinfectant o Virex II 256 o Virex Plus One-Step Disinfectant Cleaner & Deodorant o Virex TB Ready-to-Use Disinfectant Cleaner o Waxie 320 Disinfectant Bathroom Cleaner o ZEP SPIRIT II Detergent Disinfectant		

Others	• Ethylene oxide (**NOT ALLOWED**)	• Highly flammable and explosive • Irritant to the skin, eyes, and the respiratory tract • Toxic by inhalation • Is a known carcinogen	**PRODUCT NOT ALLOWED AT UW DUE TO EMISSIONS REGULATIONS**

NOTES

- Always follow the manufacturers product-use instructions to ensure safe application.
- Refer to product safety data sheet for hazard communication information.
- Additional controls and procedures may be necessary when applying products with a mechanical sprayer. This includes garden sprayers, foggers, and ionizing sprayers. Consult with EH&S prior to utilizing mechanical devices to apply disinfectant.

Please note this list is not exhaustive as there are a large number of disinfectants currently on the market. As new disinfectants are purchased and used by UW departments, EH&S will update this table as needed. For the full list of EPA-registered disinfectants for COVID-19, see the EPA website: List N: Disinfectants for Use Against SARS-CoV-2.

This document currently aligns with disinfectant use summarized in the COVID-19 Prevention: Enhanced Cleaning and Disinfection Protocols EH&S guidance document for general cleaning and prevention as well as enhanced cleaning activities.