

Glove Recommendation Chart

General notes:

1. Thin gauge gloves (< 8-10 mils) are designed to provide barrier protection with maximum tactile sensitivity and dexterity. These gloves are not designed for continuous chemical contact or immersion. Due to the limited chemical protection properties of thin gauge gloves, in situations when incidental chemical contact occurs, the user should remove the gloves immediately and replace with a new pair.
2. Vinyl gloves are inappropriate for chemical use.
3. May want to wear latex or other over-glove with Silver Shield gloves for improved manual dexterity. Silver Shield Lite gloves may be preferred and they are reported to provide equivalent chemical protection.

Chemical/Substance	Recommended Glove	
	Incidental Contact <u>ONLY</u> ¹	Immersion or other continual contact ² (No thin gauge gloves ³)
1. Acetic Acid	Latex	Neoprene, butyl, or Silver Shield
2. Acetone	Latex, nitrile, or neoprene	Butyl or Silver Shield
3. Acetonitrile	Neoprene or nitrile	Butyl or Silver Shield
4. Ammonium hydroxide	Latex or nitrile	Neoprene, nitrile, or butyl
5. Bleach/water (15%)	Latex or nitrile	Silver Shield
6. Chloroform	Nitrile	Silver Shield
7. DMSO or anything mixed with DMSO	Latex, or nitrile	Neoprene, Butyl or Silver Shield
8. Drug powders (no solvents)	Latex, nitrile or neoprene	Latex, nitrile, or neoprene
9. Ethanol ⁴	Latex, nitrile, or neoprene	Nitrile, butyl, or Silver Shield
10. Ethyl Acetate	Nitrile or neoprene	Butyl or Silver Shield
11. Heptane	Nitrile or neoprene	Nitrile or Silver Shield
12. n-Hexane	Latex, nitrile, or neoprene	Nitrile or Silver Shield
13. Hydrochloric Acid ⁵	---	Latex, nitrile, neoprene, butyl, or Silver Shield
14. Hydrogen peroxide	Nitrile or neoprene	Latex, nitrile, butyl, or Silver Shield
15. Isopropanol	Latex, nitrile, neoprene, or butyl	Silver Shield
16. Methanol	Nitrile or neoprene	Butyl or Silver Shield
17. Methylene Chloride	Neoprene	Silver Shield
18. MTBE	Butyl ⁶	Neoprene ⁶ and Silver Shield
19. Nicotine	Butyl, Silver Shield, double latex or double nitrile ⁷	Butyl or Silver Shield
20. Nitric Acid ⁵	Latex, or nitrile	Neoprene, butyl or Silver Shield
21. Phosphoric Acid	---	Latex, nitrile, neoprene, butyl or Silver Shield
22. Sodium Hydroxide ⁵	---	Latex, nitrile, neoprene, butyl or Silver Shield
23. Sulfuric Acid ⁵	Neoprene	Silver Shield
24. Tetrahydrofuran	Latex or neoprene	Silver Shield
25. Toluene	Neoprene	Silver Shield
26. Triethylamine	Nitrile or neoprene	Nitrile

¹ Nitrile may be listed under both categories (incidental and immersion). Nitrile gloves may be preferred to latex due to the concern for possible latex sensitization.

² Continual contact includes wiping with saturated cloth. Any glove listed in this column may also be used for incidental contact.

³ Unless specifically approved

⁴ Including drug substances mixed with ethanol

⁵ (concentration dependent)

⁶ very little information available

⁷ Double latex or double nitrile OK for handling finished systems, provided outer glove is removed immediately upon contact with nicotine.

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References

1. Forsberg K. Mansdorf SZ. *Quick Selection Guide to Chemical Protective Clothing*, 2nd ed. Van Nostrand Reinhold, 1993.
2. Oklahoma State University Chemical Guide, <http://www.pp.okstate.edu/ehs/hazmat/gloves.htm>
3. VWR 2000/2001 Catalog, *Chemical Resistance Chart*, pages 734-735. Referenced by this catalog as from Forsberg and Keith (1989) Chemical Protective Clothing Performance Index Book. John Wiley and Sons. "This information has been provided by Best Manufacturing Company and is applicable only to Best gloves.
4. North ezGuide Interactive Glove and Respirator Selection Guide, Product No. EZGUIDE-V11224, Version 1.0, 1999
5. *Best Comprehensive Guide to Chemical-Resistant Best Gloves*, Version 3.0, 1995

Glove Recommendation Chart

Photographs of Selected Glove Types

Latex (thin gauge)



Nitrile (thin gauge)



Neoprene (thin gauge)



Butyl



Glove Recommendation Chart

Silver Shield®



Silver Shield® Lite

