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.
- 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 | Immersion or other continual |
| | ONLY ¹ | contact ² |
| | | (<u>No</u> thin gauge gloves³) |
| 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 wipeing 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.

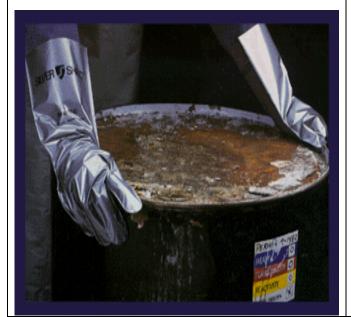
References

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- 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
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Photographs of Selected Glove Types



Silver Shield®



Silver Shield® Lite

