A number of organic chemicals may form unstable and dangerous peroxide compounds when stored for extended time and left unchecked. Such chemicals pose a significant hazard as they can be explosive if heated or subjected to mechanical shock. Typically, the more concentrated a peroxide forming compound is (i.e. concentrated solutions after undergoing evaporation or distillation) the greater

- 3. Benzyl alcohol
- 4. 2-Butanol
- 5. Cumene
- 6. Cyclohexanol
- 7. Cyclohexene
- 8. 2-cyclohexen-1-ol
- 9. Decahydronaphthalene
- 10. Diacetylene
- 11. Dicyclopentadiene
- 12. Diethyl ether (ether)
- 13. Diglyme
- 14. Dioxane
- 15. Glyme
- 16. Furan
- 17. 4-Heptanol
- 18. 2-Hexanol
- 19. Methyl acetylene
- 20. 3-Methyl-1-butanol
- 21. Methyl cyclopentane
- 22. Methyl isobutyl ketone
- 23. 2-Methyl-2-pentanol
- 24. 2-Pentanol
- 25. 4-Penten-1-ol
- 26. 1-Phenylethanol
- 27. 2-Phenylethanol
- 28. 2-Propanol
- 29. Tetrahydrofuran
- 30. Tetrahydronaphthalene
- 31. Vinyl ethers
- 32. Other secondary alcohols

## Testing:

- A. Every 6 months
- B. Discard after 1 year

Important: Consult manufacturers SDS when using these chemicals

## List C – Hazard due to Peroxide Initiation of Polymerisation (Extremely shock and heat sensitive)

Highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are highly shock and heat sensitive

## **List D - Potential Peroxide formers**

The followin any of the above 3 categories:

- 1. Acrolein
- 2. Allyl ether
- 3. Allyl ethyl ether4. Allyl phenyl ether
- 5. p-(n-Amyloxy)benzoyl chloride
- 6. n-Amyl ether
- 7. Benzyl n-butyl ether
- 8. Benxyl ether
- 9. Benzyl ethyl ether
- 10. Benzyl methyl ether
- 11. Benzyl 1-nap Benxyl ether

| This shaming forms perovides during storage thus limiting its shalf life. Tost or  |   |
|--|---|
| This chemical forms peroxides during storage thus limiting its shelf life. Test or dispose months after opened.  |   |
| Date Received Date Tested Date First Opened Test Results Dispose By (date)   |   |
| Warning: Peroxide-Forming Chemical   | Warning: Peroxide-Forming Chemical  |
| Please ensure you do the following;  | Please ensure you do the following;   |
| <ol> <li>This chemical must be stored in its original container, with the lid tightly closed.</li> <li>Ensure that in storage this chemical has minimal exposure to light, air, and heat.</li> <li>If crystals, discoloration, or layering are visible do not move or open container</li> <li>Refer to manufacturers SDS or CHEMALERT for further information</li> <li>For disposal, please contact the UNSW HS unit</li> <li>Check for peroxides before distilling or concentrating.</li> </ol> | <ol> <li>This chemical must be stored in its original container, with the lid tightly closed.</li> <li>Ensure that in storage this chemical has minimal exposure to light, air, and heat.</li> <li>If crystals, discoloration, or layering are visible do not move or open container</li> <li>Refer to manufacturers SDS or CHEMALERT for further information</li> <li>For disposal, please contact the UNSW HS unit</li> <li>Check for peroxides before distilling or concentrating.</li> <li>This chemical forms peroxides during storage, limiting its shelf life. Test or dispose months after opened.</li> </ol> |
| This chemical forms peroxides during storage, limiting its shelf life. Test or dispose months after opened.  Date Received   | Date Received  Date Tested  Date First Opened   |
| Date Tested  | Test Results  |
| Date First Opened  | Dispose By (date)   |
| Test Results   |   |
| Dispose By (date)  |   |
| ,  |   |