

# Exercise 6.5b

## Naming Molecular Compounds – Answers

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

**DIRECTIONS:** Next to each formula write the name of the covalent compound. For acids write both the molecular name and acid name.

Formulas in *italics* are acids when dissolved in water. The acid name would be used when “(aq)” (meaning aqueous solution) follows the formula. All other times, the molecular name would be used.

Molecular Naming Prefixes		
1 – mono-	5 – penta-	9 – nona-
2 – di-	6 – hexa-	10 – deca-
3 – tri-	7 – hepta-	11 – undeca-
4 – tetra-	8 – octa-	12 – dodeca-

Naming Acids	
Anion suffix	Acid Name
-ide	hydro____ic acid
-ate	____-ic acid
-ite	____-ous acid

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|--|---|
| <p>1. <math>\text{OF}_2</math>: <u>oxygen difluoride</u></p> <p>2. <math>\text{N}_2\text{O}_4</math>: <u>dinitrogen tetroxide</u></p> <p>3. <math>\text{PCl}_3</math>: <u>phosphorus trichloride</u></p> <p>4. <math>\text{CBr}_4</math>: <u>carbon tetrabromide</u></p> <p>5. <math>\text{HCl}</math>: <u>hydrogen chloride</u><br/>Acid: <u>hydrochloric acid</u></p> <p>6. <math>\text{H}_2\text{S}</math>: <u>hydrogen sulfide</u><br/>Acid: <u>hydrosulfuric acid</u></p> <p>7. <math>\text{SCl}_6</math>: <u>sulfur hexachloride</u></p> <p>8. <math>\text{N}_2\text{O}_5</math>: <u>dinitrogen pentoxide</u></p> <p>9. <math>\text{HF}</math>: <u>hydrogen fluoride</u><br/>Acid: <u>hydrofluoric acid</u></p> <p>10. <math>\text{HClO}_3</math>: <u>hydrogen chlorate</u><br/>Acid: <u>chloric acid</u></p> <p>11. <math>\text{NH}_3</math>: <u>nitrogen trihydride (ammonia)</u></p> <p>12. <math>\text{HNO}_3</math>: <u>hydrogen nitrate</u><br/>Acid: <u>nitric acid</u></p> <p>13. <math>\text{HNO}_2</math>: <u>hydrogen nitrite</u><br/>Acid: <u>nitrous acid</u></p> <p>14. <math>\text{H}_2\text{O}</math>: <u>dihydrogen monoxide (water)</u></p> <p>15. <math>\text{NI}_3</math>: <u>nitrogen triiodide</u></p> | <p>16. <math>\text{H}_2\text{Te}</math>: <u>hydrogen telluride</u><br/>Acid: <u>hydrotelluric acid</u></p> <p>17. <math>\text{SiF}_4</math>: <u>silicon tetrafluoride</u></p> <p>18. <math>\text{H}_2\text{Se}</math>: <u>hydrogen selenide</u><br/>Acid: <u>hydroselenic acid</u></p> <p>19. <math>\text{P}_2\text{Cl}_5</math>: <u>diphosphorus pentachloride</u></p> <p>20. <math>\text{SiO}_2</math>: <u>silicon dioxide</u></p> <p>21. <math>\text{CO}_2</math>: <u>carbon dioxide</u></p> <p>22. <math>\text{HClO}_4</math>: <u>hydrogen perchlorate</u><br/>Acid: <u>perchloric acid</u></p> <p>23. <math>\text{N}_2</math>: <u>nitrogen</u></p> <p>24. <math>\text{H}_2\text{SO}_4</math>: <u>hydrogen sulfate</u><br/>Acid: <u>sulfuric acid</u></p> <p>25. <math>\text{PH}_3</math>: <u>phosphorus trihydride</u></p> <p>26. <math>\text{HCN}</math>: <u>hydrogen cyanide</u><br/>Acid: <u>hydrocyanic acid</u></p> <p>27. <math>\text{HClO}</math>: <u>hydrogen hypochlorite</u><br/>Acid: <u>hypochlorous acid</u></p> <p>28. <math>\text{C}_2\text{H}_4</math>: <u>dicarbon tetrahydride / ethene</u></p> <p>29. <math>\text{C}_2\text{H}_2</math>: <u>dicarbon dihydride / ethyne</u></p> <p>30. <math>\text{P}_2\text{O}_5</math>: <u>diphosphorus pentoxide</u></p> |
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