

ACTIVITY 1.3
Nomenclature
Worksheets

Name _____

Group _____

Worksheet I Binary Compounds and Binary Acids

- | | |
|------------------------------------|----------------------------|
| 1. Al_2O_3 _____ | sodium sulfide _____ |
| 2. SiI_4 _____ | calcium bromide _____ |
| 3. AsF_3 _____ | barium sulfide _____ |
| 4. Cs_3N _____ | phosphorus triiodide _____ |
| 5. SiO_2 _____ | sulfur trioxide _____ |
| 6. N_2O_5 _____ | aluminum selenide _____ |
| 7. LiCl _____ | silicon disulfide _____ |
| 8. B_2S_3 _____ | carbon dioxide _____ |
| 9. K_2O _____ | sodium oxide _____ |
| 10. PF_5 _____ | carbon monoxide _____ |
| 11. BeO _____ | lithium fluoride _____ |
| 12. SeCl_2 _____ | boron trichloride _____ |
| 13. I_2O_7 _____ | lithium phosphide _____ |
| 14. BaI_2 _____ | diarsenic pentoxide _____ |
| 15. HCl(aq) _____ | aluminum oxide _____ |
| 16. MgS _____ | hydrofluoric acid _____ |
| 17. $\text{H}_2\text{S(aq)}$ _____ | strontium fluoride _____ |
| 18. Na_3N _____ | potassium sulfide _____ |
| 19. OF_2 _____ | cesium telluride _____ |
| 20. HI(aq) _____ | hydroselenic acid _____ |

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Worksheet II Stock Nomenclature

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|--|------------------------------|
| 1. HgSO_4 _____ | iron(II) sulfide _____ |
| 2. Cu_3P_2 _____ | tin(II) oxalate _____ |
| 3. $\text{Sn}_3(\text{PO}_4)_2$ _____ | copper(II) oxide _____ |
| 4. $\text{Pb}_3(\text{PO}_4)_2$ _____ | iron(II) hydroxide _____ |
| 5. $\text{Cu}(\text{ClO}_3)_2$ _____ | tin(IV) carbonate _____ |
| 6. $\text{Fe}_2(\text{SO}_4)_3$ _____ | mercury(II) oxide _____ |
| 7. $\text{Sn}(\text{SCN})_2$ _____ | copper(I) sulfite _____ |
| 8. $\text{Hg}(\text{NO}_3)_2$ _____ | copper(II) nitrate _____ |
| 9. FePO_4 _____ | lead(II) nitrite _____ |
| 10. PbO_2 _____ | lead(IV) iodide _____ |
| 11. HgBr_2 _____ | iron(II) sulfide _____ |
| 12. PbSO_4 _____ | mercury(I) oxide _____ |
| 13. Hg_2F_2 _____ | copper(I) acetate _____ |
| 14. $\text{Fe}_2(\text{SO}_4)_3$ _____ | lead(II) phosphate _____ |
| 15. HgO _____ | tin(II) phosphide _____ |
| 16. CuI _____ | iron(III) permanganate _____ |
| 17. $\text{Sn}(\text{SO}_4)_2$ _____ | mercury(I) chloride _____ |
| 18. PbO _____ | lead(II) fluoride _____ |
| 19. $\text{Cu}(\text{OH})_2$ _____ | copper(II) nitrate _____ |
| 20. $\text{Fe}(\text{CN})_2$ _____ | tin(IV) chloride _____ |

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Worksheet III Polyatomic Nomenclature—Salts and Acids

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|--|----------------------------|
| 1. $\text{Mg}(\text{ClO}_3)_2$ _____ | sodium cyanide _____ |
| 2. Na_2SO_4 _____ | lithium chlorate _____ |
| 3. $\text{Mg}(\text{CN})_2$ _____ | rubidium sulfate _____ |
| 4. Na_3PO_4 _____ | ammonium thiocyanate _____ |
| 5. NaClO _____ | beryllium cyanide _____ |
| 6. Rb_2CO_3 _____ | calcium phosphate _____ |
| 7. $\text{HNO}_2(\text{aq})$ _____ | oxalic acid _____ |
| 8. $\text{Cs}_2\text{C}_2\text{O}_4$ _____ | cesium carbonate _____ |
| 10. BeCO_3 _____ | potassium dichromate _____ |
| 11. $\text{HClO}_3(\text{aq})$ _____ | ammonium acetate _____ |
| 12. $\text{NaC}_2\text{H}_3\text{O}_2$ _____ | strontium chromate _____ |
| 13. BaSO_3 _____ | sodium _____ |
| 14. $\text{Mg}(\text{NO}_2)_2$ _____ | magnesium phosphate _____ |
| 15. CaCO_3 _____ | acetic acid _____ |
| 16. $\text{Al}(\text{OH})_3$ _____ | lithium peroxide _____ |
| 17. $(\text{NH}_4)_2\text{SO}_4$ _____ | potassium nitrite _____ |
| 18. $\text{H}_2\text{SO}_4(\text{aq})$ _____ | barium hydroxide _____ |
| 19. $\text{Sr}(\text{ClO}_3)_2$ _____ | phosphoric acid _____ |
| 20. Na_2O _____ | zinc hypochlorite _____ |

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Worksheet IV Extra Nomenclature Exercises—Salts and Hydrates

Salts with Hydrogen Anions

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|---|--------------------------------------|
| 1. NaHSO_4 _____ | calcium monohydrogen phosphate _____ |
| 2. $\text{Ba}(\text{H}_2\text{PO}_4)_2$ _____ | ammonium bicarbonate _____ |
| 3. K_2HPO_4 _____ | zinc dihydrogen phosphate _____ |
| 4. LiHCO_3 _____ | cesium hydrogen sulfate _____ |
| 5. $\text{Ca}(\text{HSO}_3)_2$ _____ | magnesium bicarbonate _____ |
| 6. NH_4HSO_4 _____ | sodium hydrogen sulfite _____ |
| 7. PbHPO_4 _____ | rubidium dihydrogen phosphate _____ |
| 8. $\text{Sn}(\text{H}_2\text{PO}_4)_2$ _____ | barium monohydrogen phosphate _____ |

Hydrates

- | | |
|---|---------------------------------------|
| 1. $\text{SnCl}_4 \cdot \text{H}_2\text{O}$ _____ | zinc acetate dihydrate _____ |
| 2. $\text{BaI}_2 \cdot \text{H}_2\text{O}$ _____ | ammonium phosphate trihydrate _____ |
| 3. $\text{NaC}_2\text{H}_3\text{O}_2 \cdot 3\text{H}_2\text{O}$ _____ | sodium hypochlorite _____ |
| 4. $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ _____ | barium nitrite _____ |
| 5. $\text{NaIO}_4 \cdot 3\text{H}_2\text{O}$ _____ | calcium bromide _____ |
| 6. $\text{HgSO}_4 \cdot 2\text{H}_2\text{O}$ _____ | iron(III) bromide hexahydrate _____ |
| 7. $\text{Ca}(\text{ClO}_2)_2 \cdot 3\text{H}_2\text{O}$ _____ | lead(II) perchlorate trihydrate _____ |
| 8. $\text{Na}_3\text{PO}_4 \cdot 10\text{H}_2\text{O}$ _____ | magnesium iodide octahydrate _____ |

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Worksheet V Nomenclature Review

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|-----------------------------------|--------------------------------------|
| 1. K_2S _____ | lead(IV) perchlorate _____ |
| 2. $HNO_3(aq)$ _____ | sodium hypochlorite _____ |
| 3. Al_2O_3 _____ | perbromic acid _____ |
| 4. $Mg(NO_2)_2 \cdot 3H_2O$ _____ | sodium oxalate _____ |
| 5. $Ca(IO)_2$ _____ | silicon tetraiodide _____ |
| 6. P_4O_{10} _____ | barium chloride _____ |
| 7. $H_2S(aq)$ _____ | barium nitrite tetrahydrate _____ |
| 8. $H_2SO_3(aq)$ _____ | calcium chromate _____ |
| 9. $FeSO_3$ _____ | copper(II) acetate monohydrate _____ |
| 10. $K_2C_2O_4$ _____ | hydrofluoric acid _____ |
| 11. $Cu(IO_4)_2$ _____ | nitrous acid _____ |
| 12. $KMnO_4$ _____ | potassium iodide _____ |
| 13. $Ba_3(PO_4)_2$ _____ | lithium peroxide _____ |
| 14. $HClO_4(aq)$ _____ | hydrocyanic acid _____ |
| 15. SF_6 _____ | phosphorus pentafluoride _____ |
| 16. $LiHCO_3$ _____ | acetic acid _____ |
| 17. $HI(aq)$ _____ | aluminum chlorate _____ |
| 18. $Sn(BrO_3)_2$ _____ | chloric _____ |
| 19. $NH_4C_2H_3O_2$ _____ | ammonium _____ |
| 20. $Sn(SCN)_4$ _____ | aluminum dichromate _____ |

21. AgCl _____ magnesium hydroxide _____
22. $\text{Fe}(\text{HSO}_4)_2$ _____ lead(IV) bicarbonate _____
23. $\text{CuF}_2 \cdot 2\text{H}_2\text{O}$ _____ zinc sulfide _____
24. NaOH _____ strontium telluride _____
25. $\text{HClO}(\text{aq})$ _____ sodium sulfate _____