

## Chemical Formula Drill Sheet 1 – Ionic compounds

### Hints:

- All “**ate**” groups contain oxygen atoms. Eg. Nitrate is  $\text{NO}_3^-$ , sulfate is  $\text{SO}_4^{2-}$  and phosphate is  $\text{PO}_4^{3-}$
- The “**ide**” suffix usually represents an element. Eg. Nitride is  $\text{N}^{3-}$ , sulfide is  $\text{S}^{2-}$  and phosphide is  $\text{P}^{3-}$   
*Two exceptions are hydroxide,  $\text{OH}^-$  and cyanide,  $\text{CN}^-$*

1	potassium bromide	
2	iron(II) chloride	
3	strontium chloride	
4	potassium iodide	
5	aluminium nitrate	
6	aluminium iodide	
7	potassium phosphate	
8	iron(III) chloride	
9	lithium sulfide	
10	sodium chloride	
11	iron(II) phosphate	
12	aluminium nitride	
13	iron(II) phosphide	
14	aluminium phosphate	
15	aluminium oxide	
16	sodium phosphate	
17	iron(III) nitrate	
18	strontium fluoride	
19	potassium carbonate	
20	aluminium bromide	
21	ammonium bromide	
22	lithium iodide	
23	iron(III) hydroxide	
24	ammonium fluoride	
25	lead(II) oxide	

26	potassium oxide	
27	strontium nitride	
28	ammonium hydroxide	
29	sodium sulfate	
30	aluminium fluoride	
31	aluminium sulfide	
32	strontium carbonate	
33	sodium bromide	
34	ammonium sulfate	
35	strontium iodide	
36	sodium oxide	
37	ammonium chloride	
38	lead(IV) oxide	
39	sodium nitride	
40	iron(II) fluoride	
41	strontium hydroxide	
42	ammonium sulfide	
43	lithium phosphate	
44	iron(II) iodide	
45	potassium hydroxide	
46	iron(III) iodide	
47	potassium sulfide	
48	strontium sulfate	
49	strontium oxide	
50	potassium fluoride	

## Chemical Formula Drill Sheet 2 – Ionic compounds

### Hints:

- All **“ate”** groups contain oxygen atoms. Eg. Nitrate is  $\text{NO}_3^-$ , sulfate is  $\text{SO}_4^{2-}$  and phosphate is  $\text{PO}_4^{3-}$
- The **“ide”** suffix usually represents an element. Eg. Nitride is  $\text{N}^{3-}$ , sulfide is  $\text{S}^{2-}$  and phosphide is  $\text{P}^{3-}$   
*Two exceptions are hydroxide,  $\text{OH}^-$  and cyanide,  $\text{CN}^-$*

51	aluminium hydroxide	
52	iron(II) nitrate	
53	sodium iodide	
54	iron(III) sulfate	
55	aluminium sulfate	
56	strontium sulfide	
57	potassium nitrate	
58	tin(II) nitrate	
59	iron(II) bromide	
60	ammonium phosphate	
61	iron(III) fluoride	
62	sodium carbonate	
63	lithium nitride	
64	lithium carbonate	
65	sodium phosphide	
66	iron(III) oxide	
67	tin(IV) nitrate	
68	strontium nitrate	
69	ammonium carbonate	
70	sodium hydroxide	
71	iron(III) phosphate	
72	strontium bromide	
73	strontium phosphate	
74	aluminium carbonate	
75	ammonium phosphide	

76	potassium phosphide	
77	potassium nitride	
78	sodium fluoride	
79	aluminium chloride	
80	sodium nitrate	
81	iron(II) oxide	
82	ammonium nitride	
83	lithium hydroxide	
84	ammonium nitrate	
85	iron(III) bromide	
86	sodium sulfide	
87	lithium sulfate	
88	lithium bromide	
89	iron(II) hydroxide	
90	strontium phosphide	
91	lithium fluoride	
92	potassium sulfate	
93	aluminium phosphide	
94	lithium chloride	
95	lithium nitrate	
96	potassium chloride	
97	iron(III) phosphide	
98	zinc oxide	
99	silver chloride	
100	zinc sulfate	

### Chemical Formula Drill Sheet 1 – Ionic compounds - ANSWERS

1	potassium bromide	KBr
2	iron(II) chloride	FeCl <sub>2</sub>
3	strontium chloride	SrCl <sub>2</sub>
4	potassium iodide	KI
5	aluminium nitrate	Al(NO <sub>3</sub> ) <sub>3</sub>
6	aluminium iodide	AlI <sub>3</sub>
7	potassium phosphate	K <sub>3</sub> PO <sub>4</sub>
8	iron(III) chloride	FeCl <sub>3</sub>
9	lithium sulfide	Li <sub>2</sub> S
10	sodium chloride	NaCl
11	iron(II) phosphate	Fe <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>
12	aluminium nitride	AlN
13	iron(II) phosphide	Fe <sub>3</sub> P <sub>2</sub>
14	aluminium phosphate	AlPO <sub>4</sub>
15	aluminium oxide	Al <sub>2</sub> O <sub>3</sub>
16	sodium phosphate	Na <sub>3</sub> PO <sub>4</sub>
17	iron(III) nitrate	Fe(NO <sub>3</sub> ) <sub>3</sub>
18	strontium fluoride	SrF <sub>2</sub>
19	potassium carbonate	K <sub>2</sub> CO <sub>3</sub>
20	aluminium bromide	AlBr <sub>3</sub>
21	ammonium bromide	NH <sub>4</sub> Br
22	lithium iodide	LiI
23	iron(III) hydroxide	Fe(OH) <sub>3</sub>
24	ammonium fluoride	NH <sub>4</sub> F
25	lead(II) oxide	PbO

26	potassium oxide	K <sub>2</sub> O
27	strontium nitride	Sr <sub>3</sub> N <sub>2</sub>
28	ammonium hydroxide	NH <sub>4</sub> OH
29	sodium sulfate	Na <sub>2</sub> SO <sub>4</sub>
30	aluminium fluoride	AlF <sub>3</sub>
31	aluminium sulfide	Al <sub>2</sub> S <sub>3</sub>
32	strontium carbonate	SrCO <sub>3</sub>
33	sodium bromide	NaBr
34	ammonium sulfate	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
35	strontium iodide	SrI <sub>2</sub>
36	sodium oxide	Na <sub>2</sub> O
37	ammonium chloride	NH <sub>4</sub> Cl
38	lead(IV) oxide	PbO <sub>2</sub>
39	sodium nitride	Na <sub>3</sub> N
40	iron(II) fluoride	FeF <sub>2</sub>
41	strontium hydroxide	Sr(OH) <sub>2</sub>
42	ammonium sulfide	(NH <sub>4</sub> ) <sub>2</sub> S
43	lithium phosphate	Li <sub>3</sub> PO <sub>4</sub>
44	iron(II) iodide	FeI <sub>2</sub>
45	potassium hydroxide	KOH
46	iron(III) iodide	FeI <sub>3</sub>
47	potassium sulfide	K <sub>2</sub> S
48	strontium sulfate	SrSO <sub>4</sub>
49	strontium oxide	SrO
50	potassium fluoride	KF

### Chemical Formula Drill Sheet 2 – Ionic compounds - ANSWERS

51	aluminium hydroxide	$\text{Al}(\text{OH})_3$
52	iron(II) nitrate	$\text{Fe}(\text{NO}_3)_2$
53	sodium iodide	$\text{NaI}$
54	iron(III) sulfate	$\text{Fe}_2(\text{SO}_4)_3$
55	aluminium sulfate	$\text{Al}_2(\text{SO}_4)_3$
56	strontium sulfide	$\text{SrS}$
57	potassium nitrate	$\text{KNO}_3$
58	tin(II) nitrate	$\text{Sn}(\text{NO}_3)_2$
59	iron(II) bromide	$\text{FeBr}_2$
60	ammonium phosphate	$(\text{NH}_4)_3\text{PO}_4$
61	iron(III) fluoride	$\text{FeF}_3$
62	sodium carbonate	$\text{Na}_2\text{CO}_3$
63	lithium nitride	$\text{Li}_3\text{N}$
64	lithium carbonate	$\text{Li}_2\text{CO}_3$
65	sodium phosphide	$\text{Na}_3\text{P}$
66	iron(III) oxide	$\text{Fe}_2\text{O}_3$
67	tin(IV) nitrate	$\text{Sn}(\text{NO}_3)_4$
68	strontium nitrate	$\text{Sr}(\text{NO}_3)_2$
69	ammonium carbonate	$(\text{NH}_4)_2\text{CO}_3$
70	sodium hydroxide	$\text{NaOH}$
71	iron(III) phosphate	$\text{FePO}_4$
72	strontium bromide	$\text{SrBr}_2$
73	strontium phosphate	$\text{Sr}_3(\text{PO}_4)_2$
74	aluminium carbonate	$\text{Al}_2(\text{CO}_3)_3$
75	ammonium phosphide	$(\text{NH}_4)_3\text{P}$

76	potassium phosphide	$\text{K}_3\text{P}$
77	potassium nitride	$\text{K}_3\text{N}$
78	sodium fluoride	$\text{NaF}$
79	aluminium chloride	$\text{AlCl}_3$
80	sodium nitrate	$\text{NaNO}_3$
81	iron(II) oxide	$\text{FeO}$
82	ammonium nitride	$(\text{NH}_4)_3\text{N}$
83	lithium hydroxide	$\text{LiOH}$
84	ammonium nitrate	$\text{NH}_4\text{NO}_3$
85	iron(III) bromide	$\text{FeBr}_3$
86	sodium sulfide	$\text{Na}_2\text{S}$
87	lithium sulfate	$\text{Li}_2\text{SO}_4$
88	lithium bromide	$\text{LiBr}$
89	iron(II) hydroxide	$\text{Fe}(\text{OH})_2$
90	strontium phosphide	$\text{Sr}_3\text{P}_2$
91	lithium fluoride	$\text{LiF}$
92	potassium sulfate	$\text{K}_2\text{SO}_4$
93	aluminium phosphide	$\text{AlP}$
94	lithium chloride	$\text{LiCl}$
95	lithium nitrate	$\text{LiNO}_3$
96	potassium chloride	$\text{KCl}$
97	iron(III) phosphide	$\text{FeP}$
98	zinc oxide	$\text{ZnO}$
99	silver chloride	$\text{AgCl}$
100	zinc sulfate	$\text{ZnSO}_4$