Salt	Name	Acid	Name
$LiCl$	Lithium chloride	HCl	Hydrochloric acid
$LiBr$	Lithium bromide	HBr	Hydrobromic acid
LiF	Lithium fluoride	HF	Hydrofluoric acid
Li_2S	Lithium sulfide	H_2S	Hydrosulfuric acid

An acid with only H an one other element is named hydro.....ic acid.

Salt	Name	Acid	Name
$LiNO_2$	Lithium nitrite (NO_2^-)	HNO_2	Nitrous acid
$LiNO_3$	Lithium nitrate (NO_3^-)	HNO_3	Nitric acid
Li_2SO_3	Lithium sulfite (SO_3^{2-})	H_2SO_3	Sulfurous acid
Li_2SO_4	Lithium sulfate (SO_4^{2-})	H_2SO_4	Sulfuric acid
Li_3PO_3	Lithium phosphite (PO_3^{3-})	H_3PO_3	Phosphorous acid
Li_3PO_4	Lithium phosphate (PO_4^{3-})	H_3PO_4	Phosphoric acid

$^{+3}NO_2^-$ $^{+5}NO_3^-$

$^{+4}SO_3^{2-}$ $^{+6}SO_4^{2-}$ ←

$^{+3}PO_3^{3-}$ $^{+5}PO_4^{3-}$

Acids with H and two other elements eg. N and O can have a number of formulae because the main element can have more than 1 oxidation state.

Salt	Name	Acid	Name
$LiClO$	Lithium hypochlorite (ClO^-)	$HClO$	Hypochlorous acid
$LiClO_2$	Lithium chlorite (ClO_2^-)	$HClO_2$	Chlorous acid
$LiClO_3$	Lithium chlorate (ClO_3^-)	$HClO_3$	Chloric acid
$LiClO_4$	Lithium perchlorate (ClO_4^-)	$HClO_4$	Perchloric acid

$^{+1}ClO^-$

$^{+3}ClO_2^-$ ←

$^{+5}ClO_3^-$

$^{+7}ClO_4^-$

Elements such as Cl, Br and I can have 4 positive oxidation states so can form 4 ions with O.

Test

1. HI Hydroiodic acid
2. H_2S Hydrosulfuric acid
3. HNO_3 Nitric acid
4. H_2SO_4 Sulfuric acid
3. H_3PO_3 Phosphorous acid
5. $HBrO_2$ Bromous acid
6. Iodic acid HIO_3
7. Phosphoric acid H_3PO_4
8. Hydrobromic acid HBr
9. Hypoiodous acid HIO
10. Hydroiodic acid HI