Ion Charges
Ions Formed based on Periodic Group

Group	Val e-	Charge	Group	Val e-	Charge	Group	Val e-	Charge
1A (1)	1	1+	3A (13)	3	3+	6A (16)	6	2-
2A (2)	2	2+	4A (14)	4	4+ / 4-	7A (17)	7	1-
1B – 10B (3 – 12)	2 (Varies)	Varies	5A (15)	5	3-	8A (18)	8	No Charge

Roman Numerals

1	2	3	4	5	6	7	8
I	II	III	IV	V	VI	VII	VIII

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Polyatomic Ions

Ions formed with multiple atoms combine (*covalent bond*) to form a single ion with a negative (-) or positive (+) ion

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Polyatomic Ion Chart
The following is a list of common polyatomic ions

Polyatomic Ion	Ion Formula	Polyatomic Ion	Ion Formula	Polyatomic Ion	Ion Formula
Ammonium	NH_4^{1+}	Hydronium	H_3O^{1+}	Carbonate	CO_3^{2-}
Nitrate	NO_3^{1-}	Cyanide	CN^{1-}	Sulfate	SO_4^{2-}
Fluorate	FO_3^{1-}	Hydroxide	OH^{1-}	Chromate	CrO_4^{2-}
Chlorate	ClO_3^{1-}	Acetate	$C_2H_3O_2^{1-}$	Dichromate	$Cr_2O_7^{2-}$
Bromate	BrO_3^{1-}	Permanganate	MnO_4^{1-}	Oxalate	$C_2O_4^{2-}$
Iodate	IO_3^{1-}	Bicarbonate	HCO_3^{1-}	Phosphate	PO_4^{3-}

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Polyatomic Ion Conjugations
Some polyatomic ions can be changed by change number of oxygens

-ate (*Base*)	Ion Formula	-ite (*-1 oxy*)	Ion Formula	per__ite (*+1 oxy*)	Ion Formula
Chlorate	ClO_3^{1-}	Chlorite	ClO_2^{1-}	Perchlorate	ClO_4^{1-}
Bromate	BrO_3^{1-}	Bromite	BrO_2^{1-}	Perbromate	BrO_4^{1-}
Nitrate	NO_3^{1-}	Nitrite	NO_2^{1-}		
Carbonate	CO_3^{2-}	Carbonite	CO_2^{2-}		
Sulfate	SO_4^{2-}	Sulfite	SO_3^{2-}		
Phosphate	PO_4^{3-}	Phosphite	PO_3^{3-}		

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