NOW TRY IN ENGLISH CLIL

Salts

In chemistry, salt is a term used for ionic compounds composed of positively charged cations and negatively charged anions, so that the product is neutral and without a net charge. These ions can be inorganic (Cl^-) as well as organic (CH_3COO^-) and monoatomic (F^-) as well as polyatomic ions (SO_4^{2-}).
Solutions of salts in water are called electrolytes. Electrolytes as well as molten salts conduct electricity.

History

The first registers of salt use were at 4.000 B.C. in Egypt, Greece and Rome. Salt was very valuable and used to conserve foods. In Ancient Rome, salt started to be used as currency originating the current Latin-derivative term salary. Payments to Roman workers were made in salt. Salt was also given to the parents of the fiancé in marriage until the 8th century.
The Phoenicians (modern day Lebanese) were the first people to harvest salt from the sea. They sold it to other civilizations and most of the time it cost more than gold. The Phoenicians were victims of their success and as a result of harvesting the salt from the sea, the value of salt depreciated. The Phoenicians harvested the salt by flooding plains of land with seawater, then leaving the plains to dry. After the water dried, the salt was left, collected and sold.

Consistency

Salts are usually solid crystals with a relatively high melting point. However, there are salts that are liquid at room temperature, so-called ionic liquids. Inorganic salts usually have a low hardness and a low compressibility, similar to edible salt.

Color

Salts can be clear and transparent (sodium chloride), opaque (titanium dioxide), and even metallic and lustrous (iron disulfide).
Salts exist in all different colors: yellow (sodium chromate), orange (sodium dichromate), red (mercury (I) sulfide), mauve (cobalt dichloride hexahydrate), blue (copper sulfate pentahydrate, ferric hexacyanoferrate), green (copper (I) chloride), colourless (magnesium sulfate), white (bariumium sulphate), and black (mercury (II) sulphide). Most minerals and inorganic pigments as well as many synthetic organic dyes are salts.

Test

Different salts can elicit all five basic tastes, salty (sodium chloride), sweet (lead diacetate), sour (potassium bitartrate), bitter (magnesium sulfate), savoury (monosodium glutamate).

Smell

Pure salts are odorless, while impure salts may smell after the acid (acetates like acetic acid vinegar), cyanides like hydrogen cyanide (almonds) or the base (ammonium salts like ammonia).

Activities

Match the words in table A with the English equivalent in table B. Use a dictionary if needed.

Table A

A	Ioduro di potassio
B	Cloruro di sodio
C	Fosfato di sodio
D	Cianuro di sodio
E	Solfuro di calcio
F	Ammoniaca
G	Nitrato di sodio
H	Ipoclorito di sodio
I	Solfato di calcio
J	Idrossido di magnesio
K	Acido cloridrico
L	Idrossido di potassio
M	Acido nitrico
N	Idrossido di alluminio
O	Acido fosforico
P	Fosfito di sodio
Q	Solfato di alluminio
R	Bromuro di potassio
S	Acido solforico
T	Idrossido di sodio

Table B

1	Potassium bromide
2	Aluminium hydroxide
3	Sodium ipochlorite
4	Sodium cianide
5	Sodium chloride
6	Sodium hydroxide
7	Potassium hydroxide
8	Ammonia
9	Magnesium hydroxide
10	Sodium phosphite
11	Aluminium sulphate
12	Nitric acid
13	Sodium nitrate
14	Sodium phosphate
15	Potassium iodide
16	Sulphuric acid
17	Hydrochloric acid
18	Calcium sulphide
19	Calcium sulphate
20	Phosphoric acid

Complete the text with the most suitable words.

(1) ..... are neutral.
Salts nomenclature is simple, acids with ending (2) ..... form salts with ending –ite, and acids with ending –ic form salts with ending (3) .....
Anions of hydracids form salts with ending –ide.
Reaction between acids and bases are called (4) .....
(5) ..... of the hydroxide reacts with (6) ..... of the acid forming the (7) .....
(8) ..... is the other forming product.

Keys

Match the words in table A with the English equivalent in table B. Use a dictionary if needed.

Table A	Table B
A	18
B	14
C	8
D	4
E	2
F	20
G	12
H	6
I	10
J	16
K	17
L	13
M	7
N	3
O	1
P	19
Q	11
R	5
S	9
T	15

Complete the text with the most suitable words.

(1) Molecules are neutral.
Salts nomenclature is simple, acids with ending (2) -ous form salts with ending –ite, and acids with ending –ic form salts with
ending (3) -ate
Anions of hydracids form salts with ending –ide.
Reaction between acids and bases are called (4) ionic exchange.
(5) Cation of the hydroxide reacts with (6) anion of the acid forming the (7) salt.
(8) Water is the other forming product.