Acids, bases and salts

IGCSE Chemistry · Vocabulary in context

Word	Example
acid /ˈæsɪd/	Lemon juice is an **acid**.
metals /ˈmetlz/	**Metals** form positive ions.
salt /sɒlt/	Sodium chloride is a **salt**.
hydrogen /ˈhaɪdrədʒn/	**Hydrogen** gas burns with a squeaky pop.
base /beɪs/	Sodium hydroxide is a **base**.
neutralisation /ˌnjuːtrəlaɪˈzeɪʃn/	**Neutralisation** of an acid with a base gives a salt and water.
carbonates /ˈkɑːbəneɪts/	Acids react with **carbonates** to give carbon dioxide.
carbon dioxide /ˈkɑːbən daɪˈɒksaɪd/	We breathe out **carbon dioxide**.
effervescence /ˌefəˈvesəns/	**Effervescence** means lots of bubbles of gas.
indicator /ˈɪndɪkeɪtə/	The **indicator** changes colour at the end point.
litmus /ˈlɪtməs/	Acid turns blue **litmus** red.
thymolphthalein /ˈθaɪməlfθæliːn/	**Thymolphthalein** turns blue in alkali.
methyl orange /ˈmiːθaɪl ˈɒrɪndʒ/	**Methyl orange** is red in acid and yellow in alkali.
ions /ˈaɪɒnz/	Water molecules surround the **ions** as they dissolve.
oxides /ˈɒksaɪdz/	Metal **oxides** are usually bases.

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hydroxides /haɪˈdrɒksaɪdz/	Sodium hydroxide and calcium hydroxide are **hydroxides**.
alkali /ˈælkəlaɪ/	Sodium hydroxide is an **alkali**: a base that dissolves in water.
ammonium salts /əˈməʊnɪəm sɒlts/	**Ammonium salts** give off ammonia when heated with an alkali.
proton /ˈprəʊtɒn/	A **proton** has a positive charge.
strong acid /strɒŋ ˈæsɪd/	Hydrochloric acid is a **strong acid**.
dissociated /dɪˈsəʊsɪeɪtɪd/	A strong acid is fully **dissociated** into ions in water.
hydrochloric acid /ˌhaɪdrəˈklɔːrɪk ˈæsɪd/	The stomach makes **hydrochloric acid**.
weak acid /wiːk ˈæsɪd/	Vinegar contains a **weak acid**.
ethanoic acid /ˌeθəˈnəʊɪk ˈæsɪd/	**Ethanoic acid** is the acid in vinegar.
universal indicator /ˌjuːnɪˈvɜːsl ˈɪndɪkeɪtə/	**Universal indicator** turns red in acid and purple in strong alkali.
acidic /əˈsɪdɪk/	The stomach is **acidic**.
neutral /ˈnjuːtrəl/	Pure water is **neutral**: its pH is 7. pH 7
alkaline /ˈælkəlaɪn/	The small intestine is slightly **alkaline**.
amphoteric /ˌæmfəʊˈterɪk/	Aluminium oxide is **amphoteric**: it reacts with acids and with bases.

Word	Example
soluble /ˈsɒljuːbl/	Salt is **soluble** in water.
insoluble /ɪnˈsɒljuːbl/	Sand is **insoluble**: it does not dissolve in water.
nitrates /ˈnaɪtreɪts/	Potassium nitrate is one of the **nitrates**.
chlorides /ˈklɔːraɪdz/	Sodium chloride is one of the **chlorides**.
sulfates /ˈsʌlfeɪts/	Copper sulfate is one of the **sulfates**.
titration /taɪˈtreɪʃn/	A **titration** finds the exact volume of acid needed.
excess /ekˈses/	Add the metal in **excess**, so all the acid reacts.
filter /ˈfɪltə/	**Filter** the mixture to remove the extra solid.
evaporate /ɪˈvæpəreɪt/	Heat the solution gently so that some of the water will **evaporate**.
crystallise /ˈkrɪstəlaɪz/	Leave the solution to **crystallise** on a windowsill.
precipitation /prɪˌsɪpɪˈteɪʃn/	Mixing two solutions can cause **precipitation**: a solid forms.
filtrate /ˈfɪltreɪt/	The **filtrate** is the clear liquid that passes through the filter paper.
hydrated /haɪˈdreɪtɪd/	Blue copper sulfate is **hydrated**: it contains water.
anhydrous /ænˈhaɪdrəs/	White **anhydrous** copper sulfate turns blue when water is added.

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water of crystallisation /ˈwɔːtə ɒv ˌkrɪstəlaɪˈzeɪʃn/	Blue copper sulfate crystals contain **water of crystallisation**.