

5.2 WORKBOOK ANSWER KEY

Section 5.2 Salts

Comprehension

Recognizing acids, bases, and salts

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- (a) acid
(b) acid
(c) base
(d) acid
(e) base
(f) acid
(g) acid
(h) acid
(i) salt
(j) base
(k) base
(l) salt
(m) acid
(n) salt
(o) salt
(p) salt
(q) acid
(r) acid
(s) base
(t) acid
(u) acid
(v) salt

- acetic acid, CH_3COOH
- sodium chloride, NaCl
- sulphuric acid, H_2SO_4
- sodium hydroxide, NaOH
- magnesium hydroxide, $\text{Mg}(\text{OH})_2$
- hydrochloric acid, HCl

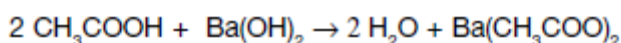
Applying Knowledge

Acid-base neutralization reactions

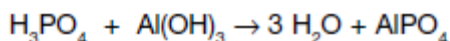
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- (a) $\text{H}_2\text{SO}_4 + 2 \text{NaOH} \rightarrow 2 \text{H}_2\text{O} + \text{Na}_2\text{SO}_4$
(b) $\text{HNO}_3 + \text{KOH} \rightarrow \text{H}_2\text{O} + \text{KNO}_3$
(c) $2 \text{HCl} + \text{Ca}(\text{OH})_2 \rightarrow 2 \text{H}_2\text{O} + \text{CaCl}_2$
(d) $2 \text{H}_3\text{PO}_4 + 3 \text{Ba}(\text{OH})_2 \rightarrow 6 \text{H}_2\text{O} + \text{Ba}_3(\text{PO}_4)_2$
(e) $\text{CH}_3\text{COOH} + \text{NaOH} \rightarrow \text{H}_2\text{O} + \text{NaCH}_3\text{COO}$
(f) $2 \text{HNO}_3 + \text{Sr}(\text{OH})_2 \rightarrow 2 \text{H}_2\text{O} + \text{Sr}(\text{NO}_3)_2$
(g) $3 \text{HF} + \text{Fe}(\text{OH})_3 \rightarrow 3 \text{H}_2\text{O} + \text{FeF}_3$
(h) $4 \text{HBr} + \text{Sn}(\text{OH})_4 \rightarrow 4 \text{H}_2\text{O} + \text{SnBr}_4$
- (a) sulphuric acid + potassium hydroxide →
water + potassium sulphate
 $\text{H}_2\text{SO}_4 + 2 \text{KOH} \rightarrow 2 \text{H}_2\text{O} + \text{K}_2\text{SO}_4$

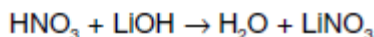
(b) acetic acid + barium hydroxide →
water + barium acetate



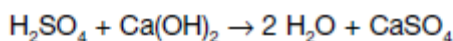
(c) phosphoric acid + aluminum hydroxide →
water + aluminum phosphate



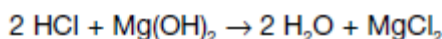
(d) nitric acid + lithium hydroxide →
water + lithium nitrate



(e) sulphuric acid + calcium hydroxide →
water + calcium sulphate



(f) hydrochloric acid + magnesium hydroxide →
water + magnesium chloride



Applying Knowledge

Metal oxides and non-metal oxides

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- oxygen
- metal oxide
- non-metal oxide
- it becomes basic
- it becomes acidic
- a base
- an acid
- (a) metal oxide
(b) non-metal oxide
(c) non-metal oxide
(d) metal oxide
(e) non-metal oxide
(f) metal oxide
(g) non-metal oxide
(h) metal oxide
- (a) a base
(b) an acid
(c) a base
(d) an acid

Assessment

Salts

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- A 2. C 3. F 4. E 5. D 6. B 7. C 8. B 9. D 10. B 11. B
12. D 13. B