

# SNC1D CHEMISTRY

## ATOMS, ELEMENTS, & COMPOUNDS

### ☛ Chemical Properties (P.152-155)

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### ☛ Chemical Properties

When we watch a fireworks display we are, in scientific terminology, seeing the chemical properties of the fireworks. A **chemical property** is a description of what a substance does when it reacts to produce new substances.



April 12, 2016

1DCHEM - Chemical Properties

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### ☛ Chemical Properties

For example, when a match burns, a chemical change occurs because the matchstick is coated with a substance that burns easily. This ability to burn, or its combustibility, is a chemical property of the match. Chemical properties can be observed only when a chemical change occurs.



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**Chemical Properties**

**CHEMICAL PROPERTY**

- ❖ a description of what a substance does when it reacts to produce new substances



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**Chemical Properties**

**PRACTICE**

1. Classify each as a physical or chemical property:

- (a) wood burns chemical
- (b) clay is brown physical
- (c) steel wool rusts chemical
- (d) a paper clip is 3 cm long physical

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**Chemical Properties**

*The usefulness of many substances is determined by their chemical properties. Many substances, such as wood and coal, are useful because they burn easily. Other substances, such as liquid/powder fire retardants used to make fire resistant materials, are useful because they do not burn easily.*



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**Chemical Properties**

**PRACTICE**

2. (a) What chemical properties of nail polish remover makes it useful?

(a) removes nail polish



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**Chemical Properties**

**PRACTICE**

2. (b) What chemical property makes nail polish remover dangerous?

(b) flammable/poisonous



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**Chemical Properties**

*Metals are used to make jewellery, but only some metals, such as stainless steel, titanium, and some types of gold are used for body piercings. This is because these metals have a chemical property that make them useful for piercings – these metals, unlike copper and silver, do not react easily with substances in the body.*



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**Chemical Properties**

**PRACTICE**

3. Surgeons sometimes use metal plates and screws to hold broken bones together. What chemical properties do you think the metal should have?

the metal should not react with substances in the body



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**Activity: Using Properties to ... (B7/P.156)**

**INSTRUCTIONS**

- Read the activity "B7: Using Properties to Identify Pure Substances".
- Follow the instructions given (i.e. procedure 1 to 14).
- Answer the questions given (i.e. analysis 15 to 19).
- Submit a formal lab report using the QHMMOCA format.

**NOTE!**

- This is a formal lab report and because of the chemicals being used your teacher will be paying particular attention to the materials list (i.e. the "chemical/amount/equipment/safety/WHMIS" chart). Use your "practice" formal lab report(s) as a guide.
- Make sure you do your "own" work!

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**Activity: Using Properties to ... (B7/P.156)**

Acid						
Iodine						
Water						
	CS	MS	SC	SHC	SN	ST

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