**DAPTO HIGH SCHOOL**

**2 UNIT CHEMISTRY**

**HSC COURSE**

**ASSESSMENT TASK 15** **% of HSC**

**DECEMBER 2009**

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| OUTCOMES | DESCRIPTION |
| H9 | Describes and predicts reactions involving hydrocarbons |
| H13 | Uses terminology and reporting styles appropriately and successfully to communicate information and understanding |

# Syllabus Statements

\* construct word and balanced formulae equations of chemical reactions as they are encountered

\* gather and present information from first-hand or secondary sources to write equations to represent all chemical reactions in the HSC course

\* identify the industrial source from the cracking of some of the fractions from the refining of petroleum

\* identify data, plan and perform a first-hand investigation to compare the reactivities of appropriate alkenes with the corresponding alkanes in bromine water

\* analyse information from secondary sources such as computer simulations, molecular model kits or multimedia resources to model the polymerisation process

\* describe the dehydration of ethanol to ethylene and identify the need for a catalyst in this process and the catalyst used

\* describe the addition of water to ethylene resulting in the production of ethanol and identify the need for a catalyst in this process and the catalyst used

\* use available evidence to gather and present information from secondary sources and analyse progress in the development of a named biopolymer. This analysis should name the specific enzyme(s) used or organism used to synthesize the material and an evaluation of the use or potential use of the polymer produced related to its properties.

\* define the molar heat of combustion of a compound and calculate the value for ethanol from first-hand data