

CHEM 413 Projects

Spring 2013

Project 1: Frostie Cherry Limeade Soda	
Metals	Identify and quantify major element in metal cap by two methods Quantify trace elements in metal cap Quantify metals in paint on cap
Flavors	Identify two of the flavors in the soda
Colors	Quantify red 40 and blue 1 in soda by calibration curve and standard addition method
Plastics	Identify plastic inside cap
Other	Propose and answer your own question

Project 2: Altoids Smalls- Wintergreen	
Metals	Identify and quantify major element in metal container by two methods Quantify trace elements in metal container Quantify titanium in the mints
Plastics	Identify plastic in wrapper
Colors	Quantify blue 1 and blue 2 in the mint
Flavors	Identify one of the flavors in the mint Confirm the presence of sucralose in the mints
Other	Propose and answer your own question OR Determine the thickness of paint on the tin

Project 3: Sharpie pro	
Metals	Identify and quantify major element in metal body by two methods Quantify trace elements in metal body
Colors	Determine the number of colorants in the ink Identify at least one colorant
Volatiles	Identify one volatile in the ink
Plastics	Identify plastic in the cap
Other	Propose and answer your own question or Determine the thickness of the walls of the metal container

Project 4: Kiss Nail Artist paint and stencil kit	
Metals	Identify and quantify major element in metal cap by two methods Quantify trace elements in metal cap
Colors	Identify at least one pigment in each of the paints
Volatiles	Identify two volatiles in the paint
Plastics	Identify plastic in package
Other	Propose and answer your own question or Confirm the presence of mica in the paints

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Project 5: Loctite Super Glue	
Metals	Identify and quantify major element in metal tube Quantify trace elements in metal tube
Volatiles	Identify two components in the glue
Plastics	Identify plastic in packaging Identify plastic in the cap
Colors	Determine the pigment in the blue paint
Other	Propose and answer your own question or Identify two additional components in the glue