

Organic Chemistry in the Real World

Introduction to Carbon

- The bonding characteristics of _____ contribute to its _____ and allow it to be the foundation of _____ molecules.
- The most significant feature of the carbon atom is its _____ to form _____ bonds with other _____ atoms as readily as it does with other _____ of atoms.
- These characteristics result in the formation of a large variety of structures such as _____, _____ and _____.

Deoxyribonucleic Acid (DNA)

- DNA is a long _____ occurring _____ made from repeating units called _____.
- These _____ bonds twist the DNA structure into a _____ helix.
- Thymine and Adenine attach using _____ hydrogen bonds. (See photo)
- Cytosine and Guanine attach using _____ hydrogen bonds. (See photo)

Proteins

- Proteins are _____ occurring _____ made up of amino acids

Petrochemicals

- Petrochemicals are chemical products derived from _____ and _____. They contain _____, including propane, butane, and octane.
- Petrochemicals are separated using a technique called _____, which separates each hydrocarbon based on its _____.

Pharmaceuticals

- Common _____ that are organic compounds include _____, _____, and _____.

Chemical and Physical Properties








- Increasing the _____, _____ of chain, or complexity of _____ will increase physical properties such as _____ point, _____ point, _____, _____, etc.
- However, the _____ the IMFs, and the longer and more complex the chain, the less likely a molecule is of becoming a _____. Therefore, the _____ pressure is _____.

Saturated and Unsaturated Chains

- _____ fats tend to be _____ at room temperature, rather than solid, due to the _____ in the chain. The kinks prevent the molecules from packing closely together to form a solid. These fats are called _____ and are present in _____ and _____.

Synthetic Hydrocarbons

- Synthetic means _____ – _____, as in hydrocarbons that were produced in the lab or in industrial plants.
- _____, _____, _____, and _____ are all examples of synthetic products used in everyday life.
- Teflon is used to make _____.
- Kevlar is used to make _____.
- Polyethylene is used to make _____.
- Nylon is used to make _____.

PLASTIC RECYCLING CHART						
						
PET	HDPE	PVC	LDPE	PP	PS	OTHER
POLYETHYLENE TEREPHTHALATE	HIGH DENSITY POLYETHYLENE	POLYVINYL CHLORIDE	LOW DENSITY POLYETHYLENE	POLYPROPYLENE	POLYSTYRENE	OTHER PC POLYCARBONATE
COSMETIC CONTAINERS FOOD JARS JELLY AND JAM CONTAINERS MOUTHWASH BOTTLES PEANUT BUTTER CONTAINERS PLASTIC BOTTLES PREPARED FOOD TRAYS SALAD DRESSING BOTTLES SINGLE USE WATER BOTTLES SOFT DRINK BOTTLES SPORT DRINK BOTTLES	AGRICULTURAL PIPE DETERGENT BOTTLES EXTRUDED PIPE GROCERY BAGS ICE CREAM TUBS MILK JUGS JUICE JUGS OIL VINEGAR BOTTLES PAIRS PLAYGROUND EQUIPMENT SHAMPOO BOTTLES SHIPPING CONTAINERS	BLISTER PACKS BLOOD BAGS CABLE SHEATHING CARPET BACKING FLOOR TILES GARDEN HOSE MEAT WRAP MEDICAL TUBING OUTDOOR FURNITURE PLUMBING PIPE WINDOW FRAMES WIRE INSULATION	6-PACK RINGS BREAD BAGS DRY CLEANING BAGS GARBAGE BAGS HEAVY DUTY BAGS MOLDED LABORATORY EQUIPMENT PLASTIC FOOD WRAP RECYCLING BINS SQUEEZABLE BOTTLES TOYS	BOTTLE CAPS CEREAL LINERS COTTAGE CHEESE CONTAINERS HINGED LUNCH BOXES KETCHUP BOTTLES MARGARINE CONTAINERS MEDICINE BOTTLES MICROWAVE OVENWARE PACKING TAPE POTATO CHIP BAGS RUBBERMAID CONTAINERS STRAWS	CAFETERIA TRAYS CD AND VIDEO CASES DISPOSABLE HOT OR COLD DRINK CUPS & PAPER PLATES DRINKING GLASSES EGG CARTONS FAST FOOD CLAMSHELLS FOAM PACKING HINGED BAKERY CONTAINERS PACKING PEANUTS PLASTIC CUTLERY STYROFOAM TOYS YOGURT CONTAINERS	BABY BOTTLES CAR PARTS FIBERGLASS LARGE WATER BOTTLES NALGENE BOTTLES SIPPER CUPS TUPPERWARE WATER COOLER BOTTLES

Revised: 10-14-2015 www.ComplianceSolutions.com

