At our core, Ryonet strives to develop greener products and processes by providing a more eco-friendly experience for both printers and the Earth. Because of this, we build our products on the foundation of the EPA's definition of sustainable chemistry. These twelve principles guide us through the entire lifecycle of our product development: design, manufacture, usage and disposal. This process ensures that only the cleanest and most efficient products make the cut. We are determined to create products that meet not only the demanding needs of our consumers but exceed the needs of our planet.

Here are the EPA's Green Chemistry guiding principles and how Ryonet's products relate to each principal.

Reference: http://www.epa.gov/greenchemistry/basics-green-chemistry

Green Chemistry's 12 Principles:
These principles demonstrate the breadth of the concept of green chemistry.

1. Prevent waste: Design chemical syntheses to prevent waste. Leave no waste to treat or clean up.

Sgreen chemicals reduce waste by maximizing cleaning effectiveness due to the high-performance nature of the product. Using Sgreen, a printer can use less product to achieve a larger result. During the cleaning process, chemical reactions with Sgreen do not produce hazardous by-product wastes requiring specialized means of disposal, outside of complying with local water and solid waste regulations.

2. Maximize atom economy: Design syntheses so that the final product contains the maximum proportion of the starting materials. Waste few or no atoms.

Sgreen chemicals utilize natural and renewable raw materials when possible. Sgreen chemicals maximize the use of natural water/H2o as feedstock. Sgreen chemicals are formulated to use the least amount of solvent feedstocks possible.

3. Design less hazardous chemical syntheses: Design syntheses to use and generate substances with little or no toxicity to either humans or the environment.

The modern chemistry used in Sgreen chemicals is nontoxic for inhalation, skin contact, or disposal. These products do not contain HAPS (hazardous air pollutants) and are not subject to Safe Water Drinking Acts. However, gloves are recommended when using Sgreen chemicals due to the nature of the cleaning process.

4. Design safer chemicals and products: Design chemical products that are fully effective yet have little or no toxicity.

Sgreen chemicals utilizes safer and greener chemistry through citrus, soy and natural plant derivatives. These compounds are still highly effective but less hazardous than traditional solvents.

5. Use safer solvents and reaction conditions: Avoid using solvents, separation agents, or other auxiliary chemicals. If you must use these chemicals, use safer ones.

Sgreen chemicals do not need to be mixed or agitated before use to achieve chemical reactivity for cleaning. The natural chemistry used in Sgreen chemicals is safe and does not react easily with any other commonly used substances.

6. Increase energy efficiency: Run chemical reactions at room temperature and pressure whenever possible.

Sgreen chemicals can be used in a standard home, office, or workplace condition.

7. Use renewable feedstocks: Use starting materials (also known as feedstocks) that are renewable rather than depletable. The source of renewable feedstocks is often agricultural products or the wastes of other processes; the source of depletable feedstocks is often fossil fuels (petroleum, natural gas or coal) or mining operations.

Sgreen chemicals use renewable feedstocks such as citrus, soy, corn, wheat, other plant derivatives and other natural solvents, and water.

8. Avoid chemical derivatives: Avoid using blocking or protecting groups or any temporary modifications if possible. Derivatives use additional reagents and generate waste.

Sgreen chemicals do not contain hazardous chemical derivatives that generate waste.

9. Use catalysts, not stoichiometric reagents: Minimize waste by using catalytic reactions. Catalysts are effective in small amounts and can carry out a single reaction many times. They are preferable to stoichiometric reagents, which are used in excess and carry out a reaction only once.

Sgreen chemicals have no reaction prior to use and need no catalysts or stoichiometric reagents.

10. Design chemicals and products to degrade after use: Design chemical products to break down to innocuous substances after use so that they do not accumulate in the environment.

Sgreen chemicals which will end up in the wastewater are all water soluble and have 20-day Biochemical Oxygen Demands (BOD) of 65% to 77% (50% or greater is considered biodegradable). Sgreen chemicals chemically degrade emulsions and ink so that they may be

absorbed back into the environment through the proper non-hazardous liquid and hard waste disposal systems compliant with local and state regulations.

11. Analyze in real time to prevent pollution: Include in-process, real-time monitoring and control during syntheses to minimize or eliminate the formation of byproducts.

Sgreen chemical technical data sheets (TDS) and instructional materials provide clear process instruction and avoid pollution through the proper use and non-hazardous disposal of the product and byproducts resulting in the cleaning process.

12. Minimize the potential for accidents: Design chemicals and their physical forms (solid, liquid, or gas) to minimize the potential for chemical accidents including explosions, fires, and releases to the environment.

Sgreen chemicals have either no or low flammable properties and can be stored in standard environments. Sgreen chemicals also ship non-hazardous/non-ORM-D with the exception of Sgreen Supreme, which ships ORM-D in quantities larger than 32 fluid ounces. Sgreen chemicals will not produce hazardous reactions or hazardous decomposition products.