



eSafetyLine

What Are Green Chemicals?

There's an awful lot of talk about green chemistry and what a benefit it is to people and the environment alike. But what are some of these products and how can they help clean up the environment or at least help to prevent further destruction of the planet. A trip to the average grocery store can show just how far this "green revolution" has gone. There are green alternatives to everything from kitchen cleaners to toilet paper and everything in between. How does this play out at the job site? Some examples include:

- Lead-free solders and other lead-based products. Breakthroughs have occurred in the replacement of lead in many products used in the construction industry. This includes new soldering materials with low levels of lead, lead being replaced in paints and the development of lead-free batteries.
- Bioplastics. Plastics have been petroleum-based since the beginning. It is now possible to make plastics from plants including corn, potatoes, even agricultural waste. This would allow plastics to now break down in our lifetime as compared to traditional plastics that can remain unchanged in landfills for hundreds of years. Products already available include plastic forks, spoons and knives and certain packaging materials.
- Flame resistant materials. Plastics that don't require the use of flame retardants are a solution to the problem of toxic flame retardants. There is a combination of two agricultural products has already been developed for this purpose.
- Halogen-free flame retardants. There are still some products that require the sue of flame retardants, green chemistry is working to find new, less toxic alternatives. In some cases, silicone based materials can be used.

Further research in green chemistry will continue to bring the consumer products that are safer for humans and the environment. One example is PVC free cables. These cables will reduce the use of both PVC and lead which is used as a stabilizer in PVC cabling. Another case of green chemistry in construction is lead-free solders that will have a lower heat requirement for use.

When looking for green alternatives it is important to remember that the purpose of this type of chemistry is to push industry to find safer alternatives that make the planet better not just giving the impression of helping the environment. An example of this is producing genetically altered produce and not understanding or knowing what the long term health or environmental effects may be.

Discussion Questions

Which green product that was mentioned would have the largest benefit to your jobsite?

Are all "green alternatives" good for the environment?

MEETING / TRAINING ATTENDANCE ROSTER

COMPANY: _____

_____ SAFETY MEETING

JOB/DEPT: _____

_____ SAFETY TRAINING

DATE: ___/___/___

TIME: _____

TOPICS ADDRESSED: _____

EMPLOYEE'S SIGNATURES

_____	_____	_____
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EMPLOYEE SUGGESTIONS AND RECOMMENDATIONS: _____

ACTION TAKEN: _____

Supervisor's Signature

_____/_____/_____
Date

Safety Coordinator's Signature

_____/_____/_____
Date