

WHAT TO DO WITH THE

LEFTOVERS



Dear Editor,

The water dispersible CARC story in PS 668 (Jul 08) had a lot of good information. But there are some additional cautions you might want to let readers know about.

Both CARC and WD CARC material that is removed by grinding, chipping or sanding are considered hazardous material. Both contain isocyanates that can cause irritation of the skin and mucous membranes, chest tightness and difficulty breathing. So I'd suggest using a positive-pressure, air-supplied respirator if a large area is being prepared for painting.

Then, all of the material removed by grinding, chipping or sanding, including the sandpaper used, needs to be placed in a sealed container and disposed of as hazardous waste.

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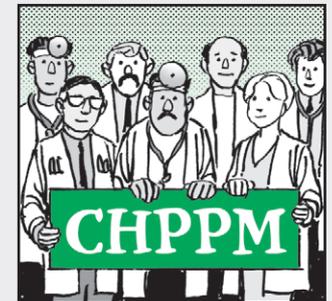


Editor's note: Thanks for the info, Sergeant. We did some further checking with the experts at the US Army Center for Health Promotion and Preventive Medicine (CHPPM). They had a little more to add:

"If CARC or WD CARC is burned or heated, it can release isocyanate vapors and metals. That's why you should always remove CARC by sanding or grinding to bare metal 4 inches on either side of an area to be welded or torch cut, and from both the front and back sides of the metal.

"You never know what was applied below the top coat of paint so you can never be certain how hazardous a paint removal task will be. While we're not aware of any isocyanate hazard from handling CARC residue from sanding and grinding, there is a potential risk of heavy metals exposure. This is particularly important for National Guard units and other units that may have older vehicles and equipment. Those vehicles may have been originally coated with CARC that contains lead and hexavalent chromium.

"Even today's CARC coatings, which are fairly non-hazardous when dry, may have underlying primers and primer washes that contain hexavalent chromium that can be released by sanding and grinding. Sanding and grinding on CARC coatings can also remove cadmium from plated fasteners and fittings.



“For these reasons, we recommend half-face respirators with NIOSH P100, R100, or N100 particulate filters as the minimum respiratory equipment used for CARC sanding and grinding operations. You should also wear coveralls that can be washed or disposed of at work and wash carefully before eating, drinking, smoking, applying cosmetics or going home from work. Remember to use skin and eye protection when painting with or removing CARC.

“The dust residue from sanding and grinding on CARC coatings should be handled as if it were hazardous waste. Cleaning with a HEPA vacuum cleaner is the best method. However, you can use wet cleanup methods or sweeping compounds as an alternative. CARC residue should **never** be swept dry or dispersed with compressed air.

“Items that are used in sanding and grinding operations—including sandpaper and abrasive blasting grit—should also be considered hazardous waste and disposed of properly.

Applying CARC by spray requires the use of respiratory protection because the liquid coatings contain isocyanates and organic solvents. WD CARC has much lower levels of organic solvents but may actually contain increased amounts of prepolymers with hexamethylene diisocyanate, which is a type of isocyanate.

“Normally, airline respirators are used when painting materiel with CARC in spray booths. For smaller spot painting tasks, air purifying respirators with organic vapor cartridges and paint prefilters are adequate if okayed by an industrial hygienist. Some brush and roller spot painting tasks may not require the use of respiratory protection. Ask your industrial hygienist to evaluate the work you are doing.”

