



# Navy Environmental Quality Fact Sheet



## Do you paint military aircraft or support equipment?

### Would you like to improve this process in the following areas?

- **Meet environmental compliance regulations.** Reduce hazardous waste disposal and air emissions by half. Media areas include air and hazardous waste programs.
- **Improve workers' safety and health.** Reduce exposure to harmful paints, solvents and chromates.
- **Increase productivity.** Apply and strip only one coat of paint instead of separate primer and topcoats.
- **Save money.** Reduce paint and primer costs by approximately 65%.



Unicoat Painting System

*UNICOAT paint technology replaces the traditional two coat (primer + paint) aircraft and equipment painting system with a one-step, one-coat system. UNICOAT is a polyurethane paint with added corrosion inhibitors and adhesion promoters. The one-coat application process reduces VOC emissions, waste solvents from cleanup operations, and aircraft weight. UNICOAT does not contain chromate or other toxics. The waste stream is less hazardous and disposal costs are lower than traditional aircraft painting waste streams. This one-step, one-coat process has been used successfully on more than 120 Navy and Air Force aircraft including the F-18, F/A-18, A-4, B-1, B-52, E-3, SH-3, CH-46, P-3, KC-135, KC-130, and KC-10. A Federal specification has been developed for UNICOAT technology (TT-P-2756) and users should refer to the GSA Supply Catalog for paints conforming to that specification. Users should ensure that materials ordered comply with the Aerospace NESHAP VOC content limit.*

### How can you achieve these improvements?

Use the UNICOAT Painting System.

### How does this equipment work?

It replaces the two coat primer/paint method of coating aircraft and equipment with one coat of non-toxic organic and inorganic zinc compounds for corrosion protection.

### How will this equipment save you money?

UNICOAT uses less paint and no primers as compared to traditional painting systems. The disposal costs are cut in half. Labor cost savings are also realized from the one-step, one-coat process. For a complete cost analysis, refer to Joint Service P2 Opportunity Handbook Data Sheet Number 4-6.

## Typical Process Flow Diagram



How can this technology eliminate or reduce pollution?

This technology can reduce worker exposure to toxic paints and primers. Use will result in the following pollution reductions:

- Reduction in use and disposal of solvents.
- Reduction of air emissions from paint and primer use.
- Eliminate lead and chrome from painting process.

Which shops can benefit most from this technology?

This technology can be used in processes that use primer and paint to control corrosion in aircraft and equipment. Shops that could benefit include:

- Aircraft painting
- Support equipment painting

How can this technology reduce regulatory compliance concerns?

This technology reduces VOC and HAP emissions. Use will result in the following regulatory compliance benefits:

- Hazardous waste reduction helps facilities meet waste minimization requirement under RCRA, 40 CFR 262.41 (a) (6).
- May help facilities reduce their generator status and lessen the tasks required to comply under RCRA, 40 CFR 262 (i.e. record keeping, reporting, inspections, transportation, accumulation time and emergency measures).
- May help reduce facility-wide air emissions below applicable major source threshold. (Facilities that are not a major source for any pollutant do not need a Title V permit.)
- UNICOAT formulations do not contain inorganic HAPs and are exempt from control requirements of the Aerospace NESHAP.

### Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Joint Service P2 Opportunity Handbook Data Sheet Number 4-6  
(Web: [http://p2library.nfesc.navy.mil/P2\\_Opportunity\\_Handbook/4\\_6.html](http://p2library.nfesc.navy.mil/P2_Opportunity_Handbook/4_6.html)) and the GSA Environmental Products Guide (Web: <http://www.northwest.gsa.gov/>)

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