

# **Paint Stripping and Miscellaneous Surface Coating Operations (Auto Body Shops)**

National Emission Standards for Hazardous Air Pollutants (NESHAPs) at Area Sources

40 CFR Part 63 Subpart HHHHHH (6H)

# What are NESHAP Area Sources?

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NESHAP regulations were developed to address **Hazardous Air Pollutants (HAPs)** generated from area sources.

“Area” sources are those sources that emit less than 10 tons per year of one HAP or 25 tons per year of all HAPs combined.

HAP sources may individually, or in the aggregate, present significant risks to public health in urban areas.

Lead, chromium, cadmium, nickel and manganese are the HAPs of concern for surface coating. Methylene chloride (MeCl) is the HAP of concern for paint stripping.

# This regulation covers three areas

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1. **Paint stripping operations** using Methylene Chloride (MeCl).
2. **Autobody refinishing operations** of motor vehicle and mobile equipment spray applied surface coating.
3. **Spray application of coatings containing compounds** of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) to any part or product made of metal or plastic or any combination of the two that are not motor vehicles or mobile equipment.

# Requirements for MeCl Paint Strippers

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## 1. Evaluate:

- If substrate can be repainted without stripping.
- If other paint stripping technology can be used.

## 2. Reduce:

- Exposure of all MeCl strippers to air.
- MeCl evaporation as much as possible (low temps).

## 3. Contain:

- Practice proper storage and disposal of MeCl strippers (e.g., store in closed, air-tight containers).

## 4. Develop:

- A **written MeCl minimization plan if more than one ton** of MeCl is used annually.

# Safety Data Sheets will tell you the amount of MeCl in the paint strippers you use

## MATERIAL SAFETY DATA SHEET Klean-Strip Aircraft Remover

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### 1. Product and Company Identification

Product Code: QAR343  
Product Name: Klean-Strip Aircraft Remover  
Manufacturer Information

### 2. Composition of Ingredients

Hazardous Components (Chemical name)	CAS#	Concentration
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1. Dichloromethane {Methylene Chloride}	75-09-2	60.0 – 90.0%
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# MeCl Recordkeeping Requirements

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If the paint stripper you are using contains ***any*** MeCl, you are subject to these requirements:

1. Record annual usage of paint strippers containing MeCl including the type and amount.
2. Records must be kept on-site for two years, and may be kept off site after that at a local office. All records must be kept for at least five years after the date of each record.

# Summary of Spray Painting Requirements

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1. All painters must be certified that they have completed **training** in:
  - Proper spray application of surface coatings
  - Proper setup and maintenance of spray equipment
2. All spray-applied coating must be applied in a **spray booth, preparation station, or mobile enclosure.**
3. All spray coatings must be applied with a high-volume, low pressure **(HVLP) spray gun, electrostatic, airless/air assisted, or equivalent technology** demonstrated by the manufacturer to achieve efficiency comparable to one of the spray gun technologies listed above.
4. **Spray gun cleaning** must be done so that an atomized mist of solvent and paint residue **is not created** outside of a container that collects this material.

# Spray Paint Training Program

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The training program must include:

1. A list of all current personnel by name and job description required to be trained.
2. Hands-on and classroom instruction on:
  - A. Spray gun equipment selection, set up and operation, including nozzle selection, spray pattern, air pressure and volume, and paint delivery rate.
  - B. Spray techniques to improve transfer efficiency and minimize overspray.
  - C. Routine spray booth and filter maintenance.
  - D. Environmental compliance with this regulation.



# Spray Technician Training and Certification

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1. The owner/operator must ensure and certify that all painters, including those contracted have training. Training must occur no later than 180 days after hiring.
2. Owners who can document or certify that a painter's work experience and/or training is equivalent to that required do not have to provide the initial training. However, refresher course training is required every five years for all painters.
3. Training may be performed by automotive paint or equipment manufacturer's courses, other industry representatives, or trade schools or organizations. Information on training is also available on the SBEAP Industry Sector web page:

<https://www.env.nm.gov/air-quality/ind-sector-info/>

# Spray Booth Requirements

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All spray-applied coatings **must be applied in a spray booth, prep station, or mobile enclosure.**

- Refinishing of complete motor vehicles or mobile equipment must have **4 walls or side curtains, and a roof, with negative pressure ventilation.**
- Miscellaneous parts or vehicle subassemblies must have **3 walls or curtains and a roof, and must be ventilated so air is drawn into the booth.**
- Mobile ventilated enclosures that are used to perform spot repairs **must enclose and, if necessary, seal** against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray.

# Spray Booth Filter Requirements

All spray booths, prep stations or mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least **98% capture of paint overspray**. Owner/operators may use published filter efficiency data provided by filter vendors.

## TECHNICAL DATA:



AVERAGE ARRESTANCE EFFICIENCY: 98.67% at 150 FPM	RECOMMENDED AVERAGE AIR VELOCITY: 150 FPM
AVERAGE FILTER DEPTH: 2"	NOMINAL PRESSURE DROP @150 FPM WITH CLEAN FILTER: 0.05 inch W.C.
FLAMMABILITY RATING: UL900, Class II	FINAL PRESSURE DROP WITH LOADED FILTER: 0.35 inch W.C.
TYPICAL OVERSPRAY HOLDING CAPACITY: 2070 grams (4.5 lbs) / sq ft	

# Spray Booth and Spray Area Requirements



**Four sided  
Closed Spray Booth  
(complete vehicles)**



**Three sided  
Open Face Booth  
(vehicle subassemblies or  
parts/products)**

Both must have the ventilation required by 6H and OSHA regulations.

# Transfer Efficiencies of Spray Guns

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All spray applied coatings must be applied with a high Transfer Efficiency (TE) spray gun. The TE is the amount of paint actually transferred to a substrate by a particular painting method.

Increasing TE by either coating method or spray technique can affect the **quality** and the **profitability** of a coating job. While the equipment is important in improving TE, an accomplished spray technician will always achieve the best TE regardless of the equipment used.

# Transfer Efficiency, Cost, and VOCs

For \$200/gallon coating

Transfer Efficiency	Start with	Total applied	Cost	VOCs emissions (lb/hr)
80%	1 gallon	1.25 gallons	\$250	5
60%	1 gallon	1.66 gallons	\$332	6.64
40%	1 gallon	2.5 gallons	\$500	10
20%	1 gallon	5 gallons	\$1000	20

Wasted paint, excessive overspray and fog, and lost profit!

# Spray Gun Cleaning Requirements

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Spray gun cleaning must be done so that **an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent.**

Cleaning may be done with hand cleaning of parts of a disassembled gun (not recommended), by flushing solvent through a gun without atomizing the solvent, by using a fully enclosed spray gun washer, or a combination of these.

**The most effective way to clean spray guns is with an enclosed gun washer.**

# Spray Gun Cleaning



Hand cleaning of spray guns under this regulation is allowed but not recommended by SBEAP



# Gun Cleaner Systems



These **systems** reduce the amount of solvent used, reduce exposure to solvent, and makes it easy to ship out paint and solvent waste residue.



# Water Cleaning Systems

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Aqueous cleaning systems use water-based detergents and are used to eliminate the use of hazardous solvents.

# Recordkeeping Requirements

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1. Spray technician training certification
2. Documentation of spray booth filter efficiency
3. Documentation of transfer efficiency from spray gun manufacturer
4. Copies of any notifications to EPA/State
5. Records of deviation from regulation requirements (date, time period and nature of deviation)
6. Records that support Initial Notification, Compliance Status, and annual notification changes
7. MeCl strippers: annual usage data, type/amount of MeCl in stripper, minimization plan for > 1 ton MeCl

# Annual Reporting Requirements

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The annual report is only required if any previously submitted information has changed. This includes any deviations from relevant requirements such as training or management practices, or past reports and notifications.

Report if there is an increase in MeCl usage, over 1 ton per year. If so, a minimization plan must be developed.

**Annual Notification of Changes Report must be submitted prior to March 1 of each calendar year.**

# Exempted Painting and Coating Activities

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1. Spray-applied applications using hand-held device (air brush) with a cup capacity no more than 3.0 fluid ounces
2. Powder coating
3. Hand-held, non-refillable aerosol containers
4. Non-atomizing technology
  - brushes, rollers, hand wiping
  - coating techniques – flow, dip, electrodeposition, web, coil
  - touch up markers or marking pens
5. Thermal spray operations using solid metallic or non-metallic materials that is heated and then applied to object by compressed air or other gas

# Source Activity Exemptions

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Surface coating or paint stripping are exempted from the regulation for:

- Armed Forces (including Coast Guard and National Guard), NASA, or National Nuclear Security Administration operations
- Military munitions or equipment for use by Armed Forces
- Research and laboratory activities
- Quality control activities
- Activities covered under any other area source NESHAP
- Personal vehicles or for other individuals (with no compensation) if two or less per year are painted

**However, if you spray paint more than two vehicles per year, you are not exempt regardless of whether compensation is received.**

# Exempted Coatings

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***Coating*** means a material spray applied to a substrate for decorative, protective, or functional purposes. However, the definition of coating under this regulation excludes the following:

- Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances
- Paper film or plastic film that may be pre-coated with adhesive
- Adhesives, sealants, maskants, or caulking materials
- Temporary protective coatings, lubricants, or surface preparation materials
- In-mold coatings that are spray-applied in the manufacture of reinforced plastic composite parts

# Requesting an Exemption from the Regulation

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If an exemption from the requirements of Subpart HHHHHH is being sought, you must provide information about your operation to show why it should be granted an exemption.

You must provide proof such as material safety data sheets or information obtained from the coating manufacturer that show you do not spray apply the target HAP (hazardous air pollutant) containing coating.

If your operations change and you start using target HAP containing coatings, then a previously approved exemption is voided and a notification of compliance status must be submitted to update your operations.



# Register your Facility

## Notification of Compliance Status Paint Stripping and Miscellaneous Surface Coating Operations Area Source Rule

40 CFR Part 63 Subpart HHHHHH (63.11169 – 63.11180)



***If you are the owner or operator of a new source, then you are required to certify in the initial notification whether the source is in compliance with each of the requirements of Subpart HHHHHH. If you are the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance, then you must submit a notification of compliance status.***

- ☐ Yes, I am subject to 40 CFR Part 63, Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Source; Final Rule.

If this regulation applies to your facility, fill out this form and send it to the NMED Air Quality Bureau no later than 180 days after startup. This form can be found on the SBEAP web site Industry Sector Page:

[https://www.env.nm.gov/aqb/sbap/documents/REV\\_6H\\_Notification2014\\_final.pdf](https://www.env.nm.gov/aqb/sbap/documents/REV_6H_Notification2014_final.pdf)

# For More Information

Visit the paint stripping and surface coating regulation on our Industry Sector Information web page: <https://www.env.nm.gov/air-quality/ind-sector-info/>

## **Subpart 6H –**

### **Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources**



Guidance documents are available in both English and Spanish, Notification forms, links to spray painting technician training courses, and to other web sites that offer information about automotive collision repair and refinishing.

# For More Information

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**Visit the SBEAP Industry Sector webpage at:**

<http://www.nmenv.state.nm.us/aqb/sbap/>

**Visit the EPA webpage at:**

<http://www.epa.gov/ttn/atw/area/arearules.html>

**Contact the Small Business Environmental Assistance Program**

**(505) 222-9500**

(Small Business Air Quality staff)

If you need assistance for locations within Bernalillo County, please  
contact the Air Quality Assistance Program:

**(505) 768-1972**