



**Utah Division of Air Quality
New Source Review Section**

**Form 21
Solvent Metal Cleaning (Degreasers)**

Company: _____
 Site/Source: _____
 Date: _____

Process Information

1. Operating schedule: _____ hrs/day _____ days/wk _____ weeks/year	2. Degreaser Manufacturer: _____ Model no.: _____ Type: <input type="checkbox"/> ConveyORIZED <input type="checkbox"/> Cold solvent <input type="checkbox"/> Open top vapor <input type="checkbox"/> Batch <input type="checkbox"/> Other _____	3. Description of metal parts or products cleaned: _____ Average number of parts cleaned/hour: _____ Maximum number cleaned per hour: _____
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4. Solvent usage: Type: _____ Gallons used during year: _____ Vapor pressure: _____ (Psia @ 100 °F)	5. Solvent is: <input type="checkbox"/> Sprayed <input type="checkbox"/> Heated, temperature _____ °F <input type="checkbox"/> Agitated, by: <input type="checkbox"/> Use of pump <input type="checkbox"/> Compressed air <input type="checkbox"/> Vertical motion <input type="checkbox"/> Ultrasonics <input type="checkbox"/> Other _____
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6. Amount of solvent waste disposed of throughout the year: _____ gallons If known, solvent content in waste _____ % by volume Method of disposal: _____	7. Freeboard: a. Distance from solvent surface to top edge of degreaser _____ inches b. Width (not length) of tank at solvent surface _____ inches c. Freeboard ratio, (a) above divided by (b) above _____
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8. Furnish manufacturer's Material Safety Data Sheets for all chemicals used in process.

Cold Cleaner Information

9. Equipped with cover: <input type="checkbox"/> yes <input type="checkbox"/> no Easily operated with one hand? <input type="checkbox"/> yes <input type="checkbox"/> no	10. Tank dimensions: Length: _____ Width: _____ Height: _____ Tank capacity: _____ gals of solvent	11. Method of draining parts: _____ _____
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12. Cold Cleaner has: Water cover Refrigerated chiller, operating temperature: _____ °F
 Carbon adsorption Other control system: _____
 None of the above

13. Ventilation: Carbon adsorption system (submit form 5)
 None Other (describe) _____

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(Continued)**

Open Top Vapor Degreaser and Conveyorized Degreaser Information

14. Dimensions of top opening:

Length: _____

Width: _____

15. Cover: yes no

Powered: yes no

Fixed spray

nozzles: yes no

16. Safety switches:

- Condenser flow switch and thermostat which shuts off the sump heat if the condenser coolant is either not circulating or too warm.
- Device, other than a condenser flow switch and thermostat, which shuts off the sump heat if the condenser coolant is either not circulating or too warm (describe): _____
- Spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle.
- Vapor level control thermostat which shuts off the sump heat when the vapor level rises too high.
- Device, other than a vapor level control thermostat, which shuts off the sump heat when the vapor level rises too high (describe): _____
- _____
- None of the above.

17. Indicate the type of pollution controls that open top vapor degreaser has (carbon filter, condenser, etc.): _____

Conveyorized Degreaser Information

18. Type of degreaser system:

Cold Vapor

19. Operating temperature of solvent? _____

20. Downtime covers:

yes no

21. Air/vapor interface is: _____ sq. ft. (attach calculations)

22. Degreaser Controls:

- Refrigerated freeboard chiller.
- Refrigerated condenser coils.
- Carbon adsorption.
- Other control system excluding condenser coils and freeboard water jacket, which reduces solvent emission (describe system and % control efficiency).
- None of the above.

23. Safety Switches:

- Condenser flow switch and thermostat which shuts off the sump heat if the condenser coolant is either not circulating or too warm.
- Device, other than a condenser flow switch and thermostat, which shuts off the sump heat if the condenser coolant is either not circulating or too warm (describe): _____
- Spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle.
- Vapor level control thermostat which shuts off the sump heat when the vapor level rises too high.
- Device, other than a vapor level control thermostat, which shuts off the sump heat when the vapor level rises too high (describe): _____
- _____
- None of the above.

24. Conveyorized degreaser is equipped with the following equipment for preventing cleaned parts from carrying out solvent liquid or vapor: None Drying tunnel Rotating basket Other

**Form 21 – Solvent Metal Cleaning (Degreasers)
(Continued)**

Emissions Calculations (PTE)

25. Calculated emissions for each tank

VOC _____ Lbs/hr _____ Tons/yr

HAPs _____ Lbs/hr (speciate) _____ Tons/yr (speciate)

Specify the method of calculations. Also, provide manufacturer's Material Safety Data Sheets (MSDS) for products being used. Submit calculations as an appendix.

Instructions

NOTE: 1. **Submit this form in conjunction with Form 1 and Form 2.**

2. Call the Division of Air Quality (DAQ) at **(801) 536-4000** if you have problems or questions in filling out this form. Ask to speak with a New Source Review engineer. We will be glad to help!

1. Indicate the operating schedule of the degreaser.
2. Indicate the manufacturer, model number, serial number and type of degreaser.
3. Indicate the type of parts that will be cleaned in the degreaser (attach details) and the average and maximum number of parts cleaner per hour.
4. Indicate the type, quantity, and vapor pressure of the solvent used in the degreaser.
5. Indicate whether the solvent is sprayed, heated, agitated, and to what temperature. Indicate if and how solvent is agitated.
6. Indicate the amount and way waste solvent is disposed.
7. Indicate the calculations for freeboard ratio.
8. Supply the manufacturer's material safety data sheets of any chemicals used with this application.
9. Indicate whether the degreaser is covered and if that cover is easily operated with one hand.
10. Supply the tank dimensions and capacity.
11. Describe the method of draining the degreased parts.
12. Indicate if any type of controls is used with the system and what they are.
13. Describe the carbon adsorption system if applicable.
14. Give dimensions of top opening.
15. Indicate if degreaser is equipped with cover and spray nozzles.
16. Indicate the types of safety switches used on the degreaser.
17. Indicate the type of controls used on the open top vapor degreaser.
18. Tell whether the degreaser uses a cold or a vapor system.
19. Give the operating temperature of the solvent.
20. Indicate whether the conveyORIZED degreaser has downtime covers.
21. Provide calculations showing the air/vapor interface. This is estimated using the dimensions of the open portion of the tank at the condenser level.
22. Indicate the degreaser controls.
23. Indicate the types of safety switches used on the degreaser.
24. Indicate the type of equipment used to prevent carry out emissions.
25. Supply calculations for all criteria pollutants and HAPs (speciate, please). Use AP-42 or manufacturers' data to complete your calculations.