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For DAQ Use Only

AQR 101: INDUSTRIAL ADHESIVE OPERATIONS ANNUAL EMISISONS INVENTORY REPORTING FORM

Important: Annual Emissions Reporting is **NOT** required for your source if the use of volatile organic compound (VOC) containing industrial adhesive materials was less than 500 gallons (1,892 L) in the reporting year.

Source ID/Registration Number (not applicable for new sources):	Reporting Year:
Company name:	
Source (facility) name:	
Source (facility) address:	
City, State, ZIP:	
Mailing address (if different from source address):	

To calculate VOC emissions, complete the form below. See instructions on page three of this form or for assistance, contact our Small Business Assistance (SBA) group at 702-455-1660

VOC Material/Product Used	Annual Usage (gallons)	VOC Content (lbs/gallon)	Actual VOC Emissions (tons/year)
VOC Emissions (in tons/year) from additional sheets, if any:			
Facility Total - Actual VOC Emissions (in tons/year):			

¹ See instructions page or [AQR 101.7](#) for additional information on excluding water and exempt compounds from adhesive materials and calculating the VOC content of low-solids materials.

Emissions Control System (ECS): If you are using an ECS to comply with Section 101 requirements, enter the control efficiency below. For more information on ECS and this regulation, refer to [Section 101](#) and/or the [Fact Sheet](#).

ECS control efficiency: _____ %

I certify that, based on information and belief formed after reasonable inquiry, the information contained in this document is true, accurate and complete.

Owner, Operator, or Responsible Official Certification (original signature)

Date

Printed Name and Title

Office Phone #: _____

Cellphone #: _____

Email Address: _____

Instructions: Please complete this form electronically to the best of your ability. Submit the completed report with the Owner's, Operator's, or Responsible Official's original (wet) signature to the Division of Air Quality by mail or in person at the address listed above.

Directions for completing the form manually:

- Actual VOC emissions are calculated based on the annual usage and the VOC content of the individual products summed for the entire source for the reporting year.
- To calculate actual VOCs from each product or material usage:
 - Start with the maximum amount of VOC-containing material (in gallons) used during a calendar year. Multiply this gallon value by the VOC emission factor (lb/gal) provided in the Safety Data Sheets (SDS) or from other records for the material and divide the result by 2000; this is the VOC emissions emitted in tons/year for the material. Do this for each material used in the calendar year. Add the emissions from each material to get the total source' calendar year emissions. You may also attach a computer-generated log of actual product consumption and VOC emissions.

$$\underline{\hspace{2cm}} \text{ gallons/year} \times \underline{\hspace{2cm}} \text{ pounds/gallon} = \underline{\hspace{2cm}} \text{ pounds} \div 2000 = \underline{\hspace{2cm}} \text{ tons/year of VOCs emitted}$$

- For adhesives or adhesive primers that do not contain reactive diluents, calculate the VOC content in weight of VOC per volume of adhesive or adhesive primer, excluding water and exempt compounds, using the following equation:

Eq. 1:
$$\text{Adhesive}_{\text{voc}} = \frac{(W_s - W_w - W_{es})}{(V_m - V_w - V_{es})}$$

where:

Adhesive_{voc} = VOC content per volume of adhesive or adhesive primer (g/L or lb/gal)

W_s = weight of volatile compounds, including water and exempt compounds

W_w = weight of water

W_{es} = weight of exempt compounds

V_m = volume of material, including water and exempt compounds

V_w = volume of water

V_{es} = volume of exempt compounds.

- For adhesives or adhesive primers that contain reactive diluents, calculate the VOC content in weight of VOC per volume of adhesive or adhesive primer, excluding water and exempt compounds, using the following equation:

Eq. 2:
$$\text{Adhesive}_{\text{voc}} = \frac{(W_{rs} - W_{rw} - W_{res})}{(V_{rm} - V_{rw} - V_{re})}$$

where:

Adhesive_{voc} = VOC content per volume of adhesive or adhesive primer (g/L or lb/gal)

W_{rs} = weight of volatile compounds not consumed during curing

W_{rw} = weight of water not consumed during curing

W_{re} = weight of exempt compounds not consumed during curing

V_{rm} = volume of material not consumed during curing

V_{rw} = volume of water not consumed during curing

V_{re} = volume of exempt compounds not consumed during curing.

- Calculate grams of VOC per liter or pounds of VOC per gallon of low-solids material using the following equation:

$$\text{Weight per volume of materials} = \frac{W_s - W_w - W_e}{V_m}$$

Eq. 3: where:

W_s = weight of volatile compounds

W_w = weight of water

W_e = weight of exempt compounds

V_m = volume of material.

For more information on this regulation refer to [Section 102](#) and/or the [Fact Sheet](#).

Also, if you have any questions or need clarification on completing this form, please contact the Air Quality Small Business Assistance Program at (702) 455-1660 or by email at AQSBAP@ClarkCountyNV.gov.