



August, 2016

## PVC Resin Supplier Questionnaire

The use of polyvinyl chloride in the manufacture of resilient floor coverings is critical. Knowing that PVC producers have continued to take steps to reduce the environmental impacts in the production of PVC resin it is our hope that vinyl floor coverings can be further promoted, if better awareness of the positive steps being taken by PVC producers are made known in the market place. You can assist us, your customers, in better understanding the current state of the environmental issues surrounding the production of PVC resin. Thank you for your help with this initiative. Please answer the following questions. See the [Acronyms](#) section for list of abbreviations used in this questionnaire.

1. Does the PVC resin you supply my company use chlorine that originates in part or in full from production plants that use:
  - Mercury cells Yes\_\_\_ No X
  - Graphite anodes Yes\_\_\_ No XIf yes, do you have plans to discontinue the use of such production methods? \_\_\_\_\_, and by what date? \_\_\_\_\_
  
2. Do you use a mercury based catalyst in the production of your PVC resins?
  - Yes \_\_\_
  - No XIf yes, by what date do you intend to discontinue the use of a mercury catalyst? \_\_\_\_\_
  
3. Is the EDC and VCM, utilized in the manufacture of the PVC resin as well as the plant producing the PVC resin you supply my company have in place appropriate strategies for handling solid waste, hazardous waste and discharges to water?
  - Yes X
  - No \_\_\_If no, do you have plans to establish these programs, by what date? \_\_\_\_\_
  
4. Is the PVC resin you supply my company sourced from plants that limit emissions of PVC, VCM and EDC to the air, water and also limit by-products and impurities in the raw PVC?
  - Yes X
  - No \_\_\_If no, do you have plans to establish limits on these emissions, by what date? \_\_\_\_\_

(continued)

**Residual Vinyl Chloride Monomer**

1. By which test method do you evaluate the residual VCM present in your PVC resin powder:
  - EPA Method 107   X
  - ISO 6401
  - Other, Specify
  
2. What is your specifications upper limit residual VCM (include units) that you measure in finished **Suspension PVC resin**?   10 ppm  
  - Do you have plans to lower these limits?   No    
If yes, to what limit?            By what year?
  - Confirm resin is below this upper limit in 99% of batches tested   Yes
  
3. What is your specification upper limit residual VAM (include unit) that you measure in finished **Suspension Copolymer PVC resin**?   1000ppm  
  - Do you have plans to lower these limits?   No    
If yes, to what level?            By what year?
  - Confirm below the upper limit in 99% of batches tested   Yes
  
4. What is your specification upper limit residual VCM (include limit) that you measure in finished **Emulsion/Dispersion PVC resin**?   No upper limit set, but the average is less than 1ppm  
  - Do you have plans to lower these limits?   No    
If yes, to what limit?            By what year?
  - Confirm below the limit in 99% of batches tested   Yes
  
5. What is your specification upper limit residual VAM (ppm) that you measure in finished **Emulsion/Dispersion Copolymer PVC resin**?   No upper limit, but the average is less than 500ppm  
  - Do you have plans to lower these levels?             
If yes, to            By what date?
  - Confirm below the limit in 99% of batches tested   Yes

**Vinyl Chloride Monomer (VCM) Emissions**

1. Is your manufacturing location vertically integrated in VCM and PVC resin manufacturing?
  - Yes   X
  - No
  
2. Are the VCM emissions no greater than 30g/metric ton in Suspension PVC produced on a 12-month basis?
  - Yes   X
  - No

If no, do you have plans to achieve these levels? \_\_\_\_ By what year? \_\_\_\_\_. What is your current emissions level? \_\_\_\_\_.

3. Are the VCM emissions no greater than 1000g/metric ton in Emulsion/Dispersion PVC based on a 12 month basis?

- Yes X
- No \_\_\_\_\_

If no, do you have plans to achieve these levels? \_\_\_\_\_ By what year? \_\_\_\_\_ What are your current emissions levels? \_\_\_\_\_

### **Environmental Management Systems (EMS)**

1. Does your company operate using an Environmental Management System that meets one or more of the following standards?

- ISO 14001 Yes X No \_\_\_\_
- The ACC Responsible Care program Yes\_\_\_\_ No X
- PVC Industry Minimum Acceptable Standard Yes\_\_\_\_ No X

If no, does your company have plans to certify to one of these standards?

Yes \_\_\_\_ No \_\_\_\_

If yes, by what date? \_\_\_\_\_

### **Acronyms**

ACC – American Chemistry Council

EDC – Ethylene Dichloride

EMS – Environmental Management System

ISO 14001 – Environmental Management Systems – Requirements with guidance for use

PVC – Polyvinyl Chloride

PVC Industry Minimum Acceptable Standard – Vinyl Council Australia

VAM – Vinyl Acetate Monomer

VCM – Vinyl Chloride Monomer