



What is the PPG Global MRL (Material Registration List)?

At PPG sites where Automotive Coatings or Resins are produced, we use MRL as a tool to prevent crater causing contamination from contact with indirect materials. All materials are tested before being introduced to the plant production, laboratory or maintenance areas:

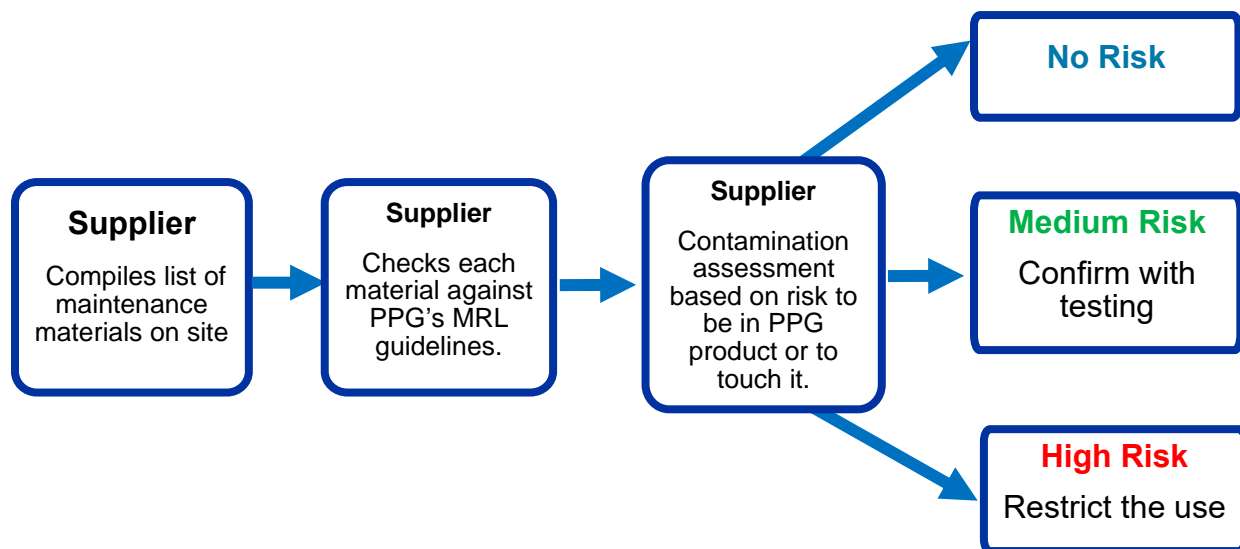
- maintenance materials such as gaskets, seals, oils, lubricants, valves, tubing,...
- consumable supplies such as filter media, cleaning product, gloves, wiping cloths, ...

How is an “INTERNAL LIST” created for a facility?

Creating a list is a one time exercise that involves taking a census of maintenance materials and consumable supplies. This list can be built based on MROs materials from current ERP’s or maintenance software or any kind of existing list for indirect materials. Each of the materials must have the TDS (Technical Data Sheet) and the SDS (Safety Data Sheet) to distinguish materials that can contain substances with contaminants for the paint such as **silicones, PFPE/PTFE**, etc.

Strong recommendation is to get the certification from the manufacturer that the material is silicon and PFPE/PTFE free.

The items on the list are then checked against PPG's MRL guidelines with the following choices and actions:





How do I request crater testing by PPG?

Fill out the "SQE14_Indirect Material Crater Test Request Form" Contact the nearest PPG Automotive Coatings plant using the [Global Industrial Segment Sites and Contacts](#) list and coordinate delivery of the material sample to be tested along with the completed form.

Some cautions about crater testing.

At PPG, we use our most sensitive coatings and our better knowledge to check if an indirect material causes craters. In some cases, a material may pass crater testing, but cause craters in a different coating technology.

Table I. Maintenance Materials and Plant Supplies - Guidelines for Contamination Prevention

Material Categories	Pre-Clean with Solvent	Confirm with Supplier	Restricted Use
<p>Gaskets (rubber, EPDM, etc.) Gaskets are produced in extruders (then sliced with a lathe) or in molds. In either case, silicone release agent is typically found in the manufacturing process of gaskets. When using a gasket in equipment that will be in contact with PPG's material, the gasket should be rinsed in solvent prior to installation.</p>	x	x	
<p>Bag Filters Bag filters can sometimes be sewn or glued with crater causing materials. In case of doubts please reach out to the PPG contact to send a sample for testing.</p>		x	
<p>Cartridge Filters In some cases, recycled material has been used to produce a cartridge filter. These kinds are considered unreliable because some recycled materials contain crater causing contaminants. Use of cartridge filters with new material only are recommended when filtering PPG material.</p>		x	
<p>High Temperature Greases Many high temperature greases contain PerfluoroPolyether (PFPE) as a key ingredient (see Global Quality Alert). This material CANNOT be removed with a simple solvent rinse or purge. For this type of lubricant, extreme care must be taken to ensure that it does not get applied on any surface or in any area that interface with PPG materials.</p>			x
<p>Mechanical Seals Mechanical seals in gear pumps are typically where PFPE type greases are applied. Care must be taken to ensure that the PFPE grease is not applied in the pump areas that will touch the product.</p>			
<p>Braided Packing Many packing/seal materials in the form of a braided rope used in some types of gear pumps and other equipment have been manufactured with the use of silicone lubricants. In case of doubts please reach out to the PPG contact to send a sample for testing.</p>			x

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<p>Plastic Parts Plastic parts such as drum valves and sampling tubes are typically have silicone release agents as part of their manufacturing process. These kinds of parts that will be in direct contact with PPG material should be rinsed in solvent before use.</p>	x		
<p>Gloves Gloves are usually a mandatory part of personal protective equipment (PPE). In some cases, nitrile gloves are used in laboratory settings where samples are taken for crater testing - either at the supplier or to be sent to PPG for testing. Some brands of nitrile gloves are contaminated with traces of release agent and the contamination has led to incorrect crater test results. If testing for craters, ensure that gloves are contaminant free - either by testing the gloves themselves or by wiping with an organic solvent.</p>			
<p>Personal Care products Several brands of hand lotions, hair gels & sprays, deodorants contain silicone derivatives and other ingredients that can cause craters. A process review of operations to assess any proximity of operators or technicians to PPG material. If crater testing is performed at the location, care must be taken to ensure that 'false negative' results do not occur as a result of contamination from personal care products.</p>		x	
<p>De-fog Spray and Lens Cleaners Some brands of de-fog spray and lens cleaners contain silicone. Ensure that the label states 'silicone free' before using in a site where materials for PPG are produced or re-packaged.</p>		x	
<p>Disinfectant/Sanitizers Several brands of disinfectants and/or sanitizers could contain silicone derivatives and other ingredients that can cause craters. A process review of operations to assess any proximity of operators or technicians to PPG material. If crater testing is performed at the location, care must be taken to ensure that 'false negative' results do not occur as a result of contamination from disinfectants and/or sanitizers products.</p>		x	

A list of categories has been developed for the material types found at PPG, customer and supplier sites as shown in Table II below:



Table II: Material Types and Risk Classification.

Type	Descriptions/Examples	Risk
Adhesive/Sealant	Glues, adhesives, caulking, sealing	Medium
Chemical	Acids, bases	Low
Cleaner	Janitorial and cleaning products for building and / or portable tanks, totes	High
Coating	Paints, coatings used for maintenance	Low
Construction	Building materials	Low
Degreaser	Maintenance product for degreasing metals	Medium
Disinfectant/Sanitizer	Surfaces, personal care and personal protection	Medium
Equipment Parts/Valves	Small equipment parts	High
Filter Media	Bag, cartridge, etc.	High
Gasket/Seal Packing	gaskets, o-rings, pump packing	High
Gloves	Latex, nitrile, rubber	Medium
Labware	Pipettes, plastic cups, ... used in lab test	Low
Lubricant - motor oils	Oils used for vehicle maintenance	High
Lubricant - oils, greases	e.g. gear box oils	High
Lubricant - sprays	e.g. WD 40 all-purpose spray lubricant	High
Mill Media	Steel, zircoa, glass media used in mills	High
Office Supplies	That will be used in the plant	Low
Oil - cutting	Coolant / lubricants designed for metalwork	Medium
Oil - hydraulic	for hydraulic equipment	High
Packaging	Cans, drums, pails, IBCs	High
Personal Hygiene/Medical	Soaps, deodorants, first aid materials	Low
Pipe/Hose/Tubing	Metal pipes, rubber hoses, plastic tubing, etc.	High
Pump	Transfer/fill pumps used in production	High
Safety Equipment	All PPE except gloves	Low
Sample Containers	Bottles, cans, plastic containers, bags	High
Tape	Adhesive type tapes, electrical tapes	Low
Wiper/Rag/Cloth	Cotton rags, disposable wipe cloths	Medium

If there are any questions regarding this policy and its application, please contact your local PPG Quality Contact using the [Global Industrial Segment Sites and Contacts](#) list.