

# Corrosion protection during pipeline transport

Corrosion protection of pipeline segments before installation is nearly as vital as corrosion protection of active pipelines, as any corrosion left on the pipeline when it is installed could lead to bigger, more serious problems for pipeline integrity down the road. Savcor Products Australia offers a range of solutions to help combat integrity issues at all stages of pipeline installation and operation.

Protection during transit can be especially critical and challenging as pipelines pass through all types of weather and environments. Because of their size, pipeline segments may find themselves unsheltered on the back of a truck or stowed topside on an ocean voyage, exposed to many harsh conditions such as sea spray, humidity, temperature swings and rain.

These environments can easily initiate corrosion on unprotected and freshly manufactured metal surfaces.

## Internal vapor phase corrosion protection

Vapor phase corrosion inhibitors in the Cortec® VpCI® line of corrosion inhibitors are excellent solutions for protecting the internal void spaces of pipeline segments. These inhibitors do not have to be applied directly to the surface like a coating, making protection of hard-to-reach voids much easier and more thorough.

Instead, the vapors travel through the air space and form a protective molecular layer on internal metal surfaces, and this protection lingers while the space remains enclosed. Two good vapor phase corrosion inhibitors for fogging into pipeline segments are VpCI-337 and VpCI-707.

VpCI-337 is a water-based vapor phase

corrosion inhibitor used extensively for oil and gas industry preservation. Because water must be removed from equipment before introducing hydrocarbons, VpCI-337 is a good choice when the pipeline is scheduled to undergo hydrostatic testing.

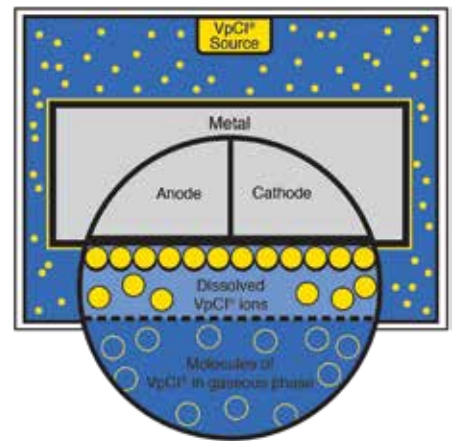
The VpCI-337 can simply be cleaned out at the same time as the hydrotesting water, but if no hydrostatic testing is expected, VpCI-707 is an excellent alternative. Designed for protection of fuel tanks, VpCI-707 provides powerful protection with less cleaning required than a water-based inhibitor when introducing hydrocarbon flow.

In each case, the ends should be capped with a material such as VpCI-126 HP UV or – if the conditions are especially severe – MilCorr® VpCI film. These films provide a physical barrier to keep the protective vapors trapped inside so preservation can continue.

They also contain corrosion inhibitors for additional protection against corrosion at the pipeline ends.

## External protection

Exposed external pipeline surfaces can be coated with a corrosion inhibitor coating such as VpCI-389 or VpCI-391, which can either be removed with an alkaline cleaner or left on if desired. Coatings like VpCI-391 are especially good for coating weld surface areas like pipeline



How Cortec VCI works. Image courtesy of Cortec.

ends, as it does not negatively impact weld geometry or mechanical properties on a weld joint, helping to keep the area corrosion free before welding.

Bundling pipeline segments in a large piece of VpCI-126 HP UV or MilCorr is another protective option that may be preferred in some cases. These products available through Savcor Products Australia in Australia and New Zealand. **P**

For more information visit [www.savcorproducts.com.au](http://www.savcorproducts.com.au)



Products for the Pipeline Industry  
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### Cathodic Protection Materials:

- Cortec VpCI Preservation Materials
- Sacrificial anodes (Zn, Mg, Al)
- Corrosometer resistance probes
- Gypsum bentonite backfill
- Dehn & Sohne IEC Certified Spark Gap Arresters
- Surge Protectors
- Borin Permanent & Portable electrodes
- Loresco Coke Backfill
- APS Flange Insulation Kits
- Radolid Nuts Protectors

### Pipeline Fittings & Equipment:

- Pipeline pigs and equipment including:
  - Foam, Poly Coated & Wire Brush Pigs
  - Monolithic Insulating Joints
  - Hot Tapping Equipment
- Wachs Pipe Cutting and Beveling
- Pipe Seals, Pipe Clamps, Leak Repair
- APS Casing Spacers
- Impressed Current & Sacrificial Anodes

Trusted Supplier of Cathodic Protection & Prevention materials in Australia.

**Melbourne**  
 T: 03 9764 2651  
 E: melbourne@savcor.com.au

**Sydney**  
 T: 02 9807 4542  
 E: sydney@savcor.com.au

**Brisbane**  
 T: 07 5549 2248  
 E: brisbane@savcor.com.au

**Perth**  
 T: 08 6240 3900  
 E: perth@savcor.com.au