

**Corrosion test report:**  
**Determination of corrosion**  
**Virocid (pure)**

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## **1 General information**

Test method: Corrosion test based on UN no. ST/SG/AC.10/11/Rev.4 guidelines

Test Item: Virocid, Batch 3421512766

Author: Jency Degryse

## **2 Information concerning the Sponsor and the Test Facility**

**Sponsor:** CID LINES NV  
Waterpoortstraat 2  
8900 Ieper  
Belgium

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## **3 Dates of experiments**

Effective experimental date: 28/01/2016

Effective completion date: 05/02/2016

## **4 Description of the method**

### **4.1 Reagents**

- Demineralized water
- Acetone
- Ethanol

### **4.2 Type of surface to be analysed**

- Inox
- Aluminium

### **4.3 Dilution of test item**

- Tested at pure concentration.

#### 4.4 Protocol

The test is performed at  $55 \pm 1^\circ\text{C}$  using test plates. A beaker, containing enough test substance to cover the test plates is placed during 1 hour in the thermostatic water bath to heat the test solution to a temperature of  $55 \pm 1^\circ\text{C}$  prior to placing the test plates (control with a thermometer). The plates are put in ethanol in an ultrasonic bath for 5 minutes, degreased with acetone and dried. The plates are weighed (the test with the prepared plates is initiated on the same day of preparation to prevent reformation of the oxide layer). Plates are placed inside the reaction pillbox standing in diagonal (to have greater contact surface between test solution and plates). The specimen is completely inserted into the test solution (the distance between the upper edge of the plate and the surface of liquid is at least 10mm). The plates are exposed to the test conditions for one week ( $168 \pm 1$  hour). After finishing the test, if necessary, the plates are dipped into a pickling solution (i.e. 30% sulphuric acid/ 70% water) for 5 minutes, then carefully cleaned with ethanol in an ultrasonic bath for 5 minutes and degreased with acetone. Once dried, the test plates are reweighed.

### 5 Results

#### 5.1 Uniform corrosion

Virocid	Weight before	Weight after	% loss
pure	Inox : 15,377g	Inox: 15,377g	0 %
	Alu: 5,268g	Alu: 5,268g	0 %

As described in the UN no. ST/SG/AC.10/11/Rev.4 guidelines, "In case of uniform corrosion attack the mass loss of the most corroded sample shall be used. The test is considered positive if for any specimen the mass loss on the metal specimen is more than the amount stated in the following table:

Table: Minimum mass loss of specimens after different exposure times

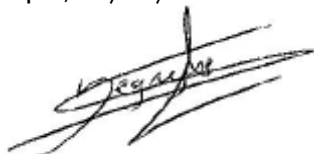
exposure time	mass loss
7 days	13.5 %
14 days	26.5 %
21 days	39.2 %
28 days	51.5 %

NOTE: These values are calculated based on a 6.25 mm/year corrosion rate."

## 6 Conclusion

According to tests performed in CIRLAM Laboratory based on UN no. ST/SG/AC.10/11/Rev.4 guidelines, Virocid is considered not corrosive.

Ieper, 05/01/2016



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