





## brine

### **VCI-645**

#### **PRODUCT DESCRIPTION**

VCI-645 is a unique, concentrated formulation that protects ferrous and non-ferrous metals from corrosive solutions containing chlorides. The product is designed to provide corrosion protection in fresh water, salt water, brine and other highly corrosive solutions containing dissolved halogens.

As a concentrated formulation, VCI-645 offers low dosage effectiveness as a treatment for a wide variety of marine and process applications requiring economical corrosion inhibition for fresh and salt water.

VCI-645 is effective as a replacement for nitrite- and chromate-based formulations and hydrazine-based oxygen scavengers. It does not contain nitrites, phosphates, chromates or heavy metals. Being environmentally safe to use, VCI-645 helps solve the problem of disposal, particularly for large quantities of water.

#### **FEATURES**

- Provides effective corrosion protection against aggressive attack from high chloride solutions.
- Effective for a broad range of applications to stop aggressive corrosion from fresh and salt water, brine, chloride and other dissolved halogens.
- Biodegradable, environmentally friendly and nitriteand amine-free.
- Low concentration effectiveness provides economical treatment.
- Multimetal protection.
- Readily water-soluble liquid for easy application.
   Solubility is not affected by pH range and salt concentration levels.

#### **TYPICAL APPLICATIONS**

- Closed circuit cooling and heating systems containing brine solution or water.
- Ballast tanks containing salt water.
- Desalination plants.
- Inhibitor for packer fluid applications.
- Prevents water-bottom corrosion in oil storage tanks and ballast tanks of ship and offshore platforms.
- Wet lay-up of boilers, pipelines, vessels, etc.
- Alkanolamine sweeteners.
- Pulp and paper process equipment.
- Mines, mining and earth moving equipment.
- Fertilizer plants and equipment.

#### **METHOD OF APPLICATION**

To provide corrosion inhibiting levels of above 95%, add VCI-645 to:

#### Cooling/Heating Systems:

- 0.75% by volume when the concentration level of chlorides is > 3% weight.
- 0.25% by volume when the concentration level of chlorides is less than 3% weight.



#### **TYPICAL PROPERTIES**

Appearance Dark brown liquid
Density 10.0-10.4 lb/gal

(1.19-1.24 kg/l)

Non-volatile Content 37-40%

pH 9.5-10.5 (Neat)

#### **PACKAGING AND STORAGE**

VCI-645 is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes and bulk. The product should be stored in a tightly closed container. Shelf life is 12 months.

# FOR INDUSTRIAL USE ONLY KEEP OUT OF REACH OF CHILDREN KEEP CONTAINER TIGHTLY CLOSED NOT FOR INTERNAL CONSUMPTION CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

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