



VpCI™ ADDITIVES FOR FORMULATORS

G - 6

PRODUCT DESCRIPTION

G-6, benzotriazole, is a proven corrosion inhibitor for copper and copper-based alloys. G-6 functions by reacting with surface copper oxides to form a strong, insoluble polymeric complex. This complex creates a protective layer or film on the copper surface, 10- to 20- molecule thick, that provides both a mechanical and electrochemical barrier against corrosive attack. This protective layer has a high degree of thermal and oxidative stability and cannot be easily removed. G-6 complexes copper ions in solution, thereby preventing galvanic corrosion of other metals in contact with copper.

SUGGESTED USES

G-6 can be used in many applications for protecting copper and copper alloys.

- Direct treatment on rolled copper or brass sheets and coils
- Circulating cooling systems such as cooling towers and air conditioning systems
- Functional fluids such as hydraulic fluids, specialty lubricants, automotive coolants and metalworking fluids
- Wrapping paper and box board for wrapping, interleaving, shipping and storing copper and brass items
- Corrosion protective coatings such as lacquers and waxes
- Cleaners such as soaps, detergents and strong alkali or acid cleaners
- Fabricated products made from copper and brass
- Artifacts, sculptures and decoration items

DOSAGE

G-6 is incorporated in liquids at a concentration between 0.1% and 2.0%. It has a near neutral pH at these concentration levels. Liquids may be either aqueous or non-aqueous. It may also be used as a solid or vapor. For a specific recommendation please contact a Cortec representative.

TYPICAL PROPERTIES

| | |
|---------------------------------|---------------------------|
| Appearance | White to off-white powder |
| Assay | 98-100% |
| Melting Point | 94°-99°C (201°-210°F) |
| <i>Solubility, wt. %, 25°C:</i> | |
| Water | 1.98 |
| 60°C | 7.4 |
| Methanol | 71.6 |
| Methoxy-2-Propanol | 55.0 |
| Isopropanol | 53.9 |
| Heptanol | 34.6 |
| Ethylene Glycol | 150.7 |
| Polyethylene Glycol | 47.7 |
| Methyl Ethyl Ketone | 46.1 |
| Benzene | 1.3 |
| Tetrachloroethylene | 0.06 |
| White Mineral Oil * | 0.1 |
| Turbine Oil * | 0.01 |

*Petroleum oil formulations containing polar additives, such as tricresyl phosphate and alkylbenzenesulfonic acid derivatives, will increase the apparent solubility.

PACKAGING

G-6 is available in 5 pound (2.3 kg), 50 pound (23 kg), 100 pound (45 kg) fiber drums and bulk.



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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4119 White Bear Parkway, St. Paul, MN 55110 USA
Phone (651) 429-1100, Fax (651) 429-1122
Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com
Internet <http://www.cortecvci.com>

Distributed by:



OTiK Sp. z o.o.
ul. Hutnicza 4
81-061 Gdynia
tel.: 58 6230498
fax: 58 6230496
otik@use.pl
www.inhibitory.use.pl

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