

Comparison of High Density Woven Coated With NTI Corrosion Inhibitor and EcoWeave

Background: Sample of a high-density woven polyethylene sheet coated with NTI's corrosion inhibitors was submitted to Cortec Corporation for a corrosion inhibitor performance evaluation. This is the same woven material that is coated with Cortec's VCIs to make EcoWeave.

Purpose: To compare the corrosion protection offered by the NTI product and EcoWeave.

Method: NO₂/NO₃ Test

Razor Blade Test

German VIA Test

Materials: NO₂ Test Strips (Lot # 80280225 / Jan 01)

NO₃ Test Strips (Lot # 80263562 / Jan 01)

Razor Blade Test Kit

German VIA test Kit

Procedure: The above tests were performed according to the standard procedures for each.

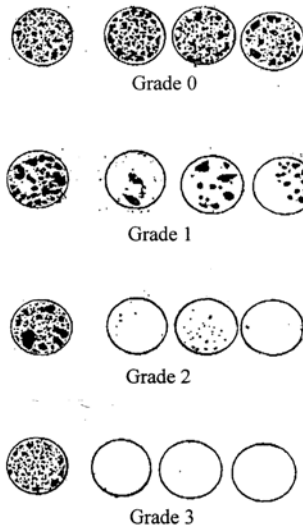
Results: *NO₂/NO₃ Test:* The NTI product tested positive for nitrite.

Material	Razor Blade Test			German VIA Test		
	Panel #1	Panel #2	Panel #3	Plug #1	Plug #2	Plug #3
NTI	Fail	Fail	Fail	Grade 1		
EcoWeave	Pass	Pass	Pass	Grade 2		
Control	Fail	-	-	Fail	-	-

German VIA Test Grades

Picture A.2

- Grade 0: Blind test
No corrosion inhibiting effect
- Grade 1: Blind test
Minute corrosion inhibiting effect
- Grade 2: Blind test
Medium corrosion inhibiting effect
- Grade 3: Blind test
Good corrosion inhibiting effect



Conclusions: 1. The Northern coated product is nitrite-based.

2. The Northern coated product did not offer good contact corrosion protection, while EcoWeave offered excellent contact corrosion protection, as shown by the Razor Blade Test.

3. The Northern coated product offered poor vapor phase corrosion protection, while EcoWeave offered good vapor phase corrosion protection, as shown by the German VIA Test.

Project #: 00-096-1125

**SODIUM NITRITE, 5.1, UN1500, PGIII, OXIDIZER/TOXIC
98 %-120 MESH**

Lot No: **NANI-03-171**

RQ: 100(45.4)

Net Wt. **50 LBS.**

CAS#: 7632-00-0

RTECS#: RA 1225000

FW: 69.00

MERK INDEX: 9,8407

Emergency Contact: **CHEMTREC: 1-800-424-9300**

CHEMTREC INTERNATIONAL: (703) 527-3887

HEALTH HAZARDS & FIRST AID:

MATERIAL IS DANGEROUS IF INHALED! IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNT OF WATER, FOR AT LEAST 15 MINUTES IN CASE OF CONTACT EXPOSURE. MATERIAL IS IRRITATING TO THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. EXPOSURE SYMPTOMS MAY INCLUDE - BURNING SENSATION, COUGHING, WHEEZING, SHORTNESS OF BREATH, HEADACHES, LARYNGITIS, NAUSEA AND VOMITING, DIURESIS, ANEMIA, METHEMOGLOBINEMIA, NEPHRITIS, GASTROENTERITIS AND VASODILATION. IF MATERIAL HAS BEEN INHALED, REMOVE SUBJECT TO FRESH AIR. IF SUBJECT IS NOT BREATHING GIVE ARTIFICIAL RESPIRATION - PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT OXYGEN SHOULD BE SUPPLIED. CONTAMINATED CLOTHING SHOULD BE REMOVED AND THOROUGHLY CLEANED BEFORE REUSE. CALL A PHYSICIAN! WASH THOROUGHLY AFTER HANDLING.

INCOMPATIBILITIES: ACIDS, ACID ANHYDRIDES, FUELS, (REDUCING AGENTS). EXPLOSIVE MIXTURES MAY RESULT FROM IMPROPER HANDLING!

PRODUCTS OF DECOMPOSITION: OXIDES OF SODIUM AND NITROGEN.

HANDLING & STORAGE: APPROPRIATE OSHA/MSHA APPROVED RESPIRATOR, CHEMICALLY RESISTANT GLOVES, CHEMICAL GOGGLES AND OTHER APPROPRIATE PROTECTIVE CLOTHING (RUBBER APRON OR OVERWEAR) SHOULD BE WORN. MECHANICAL EXHAUST IS REQUIRED. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. DO NOT BREATHE DUST. AVOID PROLONGED AND REPEATED EXPOSURE. HYGROSCOPIC. KEEP CONTAINERS SEALED. STORE IN COOL DRY PLACE. OBSERVE PROPER PERSONAL HYGIENE. SAFETY SHOWER SHOULD BE AVAILABLE. THE PREFERRED FIRE EXTINGUISHING MEDIA IS WATER, DRY CHEMICAL POWDER, CARBON DIOXIDE OR POLYMER FOAM. MATERIAL IS NONCOMBUSTIBLE. PROTECT ADJACENT AREA!

***** INDUSTRIAL OR MANUFACTURING USE ONLY *****

