

## ***Evaluation of Film Manufactured by SKS***

**Background:** SKS manufactured film was submitted for evaluation of VCI contents and corrosion protection performance.

**Purpose:** Evaluate the corrosion inhibitor Protection offered by SKS manufactured film and compare to the Cortec VpCI-126 film.

**Method:** Razor Blade Test  
VIA Test  
SO<sub>2</sub> Test  
FT-IR Spectroscopy

**Materials:** Razor Blade Test Kit  
VIA Test Kit  
SO<sub>2</sub> Test Kit  
Paragon 1000 FT-IR, Perkin Elmer

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

**Results:** Razor Blade Test

Material	Panel #1	Panel #2	Panel #3
Film manufactured by SKS	Fail	Fail	Fail
Cortec VpCI-126 Film*	Pass	Pass	Pass
Control	Fail	Fail	Fail

\*Typical results for Cortec VpCI-126 Film.

VIA Test

Material	Panel #1	Panel #2	Panel #3
Film manufactured by SKS	Grade 0	Grade 0	Grade 0
Cortec VpCI-126 Film*	Grade 4	Grade 4	Grade 4
Control	Fail	Fail	Fail

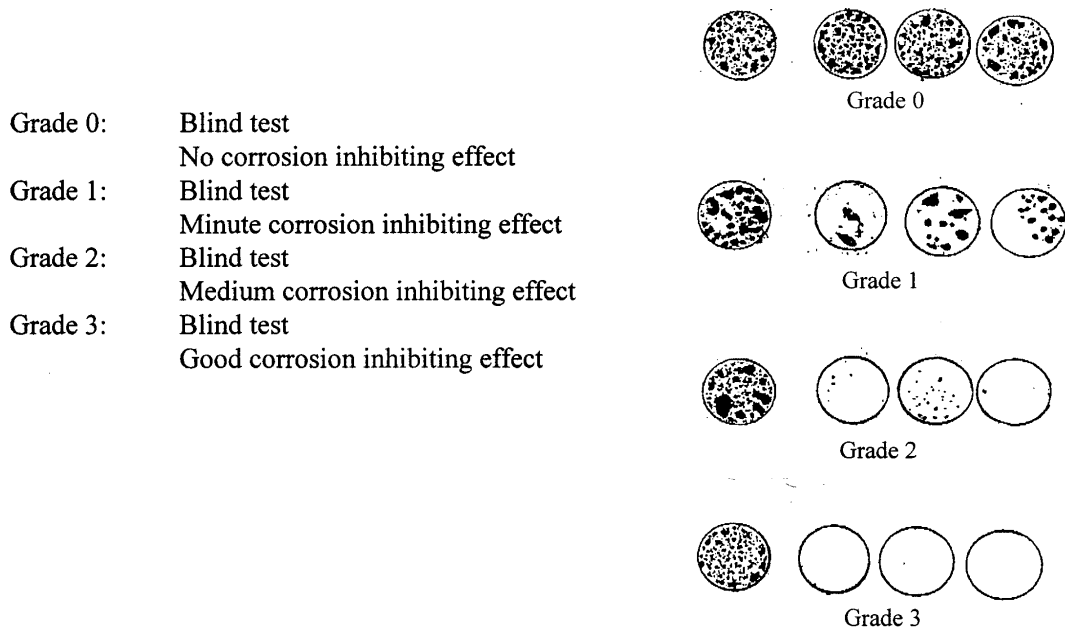
\*Typical results for Cortec VpCI-126 Film.

SO<sub>2</sub> Test Kit

Material	Panel #1	Panel #2	Panel #3
Film manufactured by SKS	Grade 4	Grade 4	Grade 4
Cortec VpCI-126 Film*	Grade 4	Grade 4	Grade 4
Control	Fail	Fail	Fail

\*Typical results for Cortec VpCI-126 Film.

### VIA Test Grades



*SO<sub>2</sub> Grades (Grade 3 and 4 are passing):*

Grade 0- Extensive corrosion covering 25% or more of panel surface

Grade 1- Moderate corrosion covering 10-25% of panel surface

Grade 2- Slight corrosion covering 5-10% of panel surface

Grade 3- Very slight corrosion covering 0-5% of panel surface

Grade 4- No visible corrosion on panel surface

#### **Conclusion:**

1. Blue film manufactured by SKS does not provide contact or vapor corrosion inhibitor protection.
2. FT-IR results showed that the basic inhibitor included in this film is sodium benzoate.

**Project #:** 02-034-1125

**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  
FW: 69.00

RTECS#: RA 1225000  
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 \*\*\***

