SUBMITTAL

713-NG

NUCLEAR GRADE LAGGING ADHESIVE AND COATING

VIMASCO CORPORATION

713 NG

NUCLEAR GRADE LAGGING ADHESIVE AND COATING

713 NG is a specifically formulated nuclear grade version of our standard 713 Lagging Adhesive and Coating. It contains only minimal levels of chlorides, fluorides, oxidizable sulfur and other leachable contaminants which are potential causes of stress corrosion of carbon steel, stainless steels, Inconels and other sensitive alloys. 713 NG complies in full with the chemical and corrosion requirements of NRC Regulatory Guide 1.36 and MIL-DTL-24244D(SH). Independent, government-approved test reports are available upon request.

In addition to meeting the above mentioned stress corrosion criteria, 713 NG complies in full with MIL-A-3316C (the Naval specification for fire resistant adhesive for thermal insulation) and is on the most recent Qualified Products List (QPL) of that specification. 713 NG has a unique full bodied constancy which minimizes dripping and sagging and it has excellent brushability. It also retains excellent fire resistance in spite of its low chloride levels.

713 NG is normally used in conjunction with lagging cloth to hold insulation on piping or related equipment in nuclear areas where austenitic stainless steel is present, though it can be used to bond other types of material as well. 713 NG has very good adhesion and provides a tight moisture-resistant bond between lagging cloth and insulation. It forms a tough paint-like outer surface which is resistant to mild alkalies, asphalts, acids, and salts. It may be washed and repainted.

713 NG is normally applied by brush, spray or roller at coverage rates ranging from 40 to 64 square feet per gallon.

713NG, until thoroughly cured, must be protected during and after application from: precipitation, freezing, oil, grease and foot traffic.

SPECIFICATION COMPLIANCE
MIL-DTL-24244D(SH)
NRC Reg. Guide 1.36
MIL-A-3316C (QPL listed)

COLOR:
White - Grade A; Red - Grade B

COVERAGE (ASTM C 461)
43 sq ft/gal @ .015 inch dry
(1.03 m²/liter @ .38mm)

DRYING TIME (ASTM D 1640-69)
To touch: 2 hours; Through: 12 to 48 hours
(Depending upon temperature and relative humidity)

WEIGHT PER U.S. GALLON (ASTM D 1475-60)
10.8 pounds (1.31 kg/liter)

SOLIDS:
54% by weight 40% ± 2% by volume

SERVICE TEMPERATURE RANGE
0ºF to 200ºF (-18ºC to 93ºC)

APPLICATION TEMPERATURE RANGE
40ºF to 120ºF (4ºC to 49ºC)

FIRE HAZARD CLASSIFICATION (ASTM E 84)
Flame Spread 15; Smoke Developed 5

FLAMMABILITY WHILE WET (ASTM D 93)
No flash to boiling at 212˚F

CLEANUP
Wet State: water Dry State: safety solvent

RECOMMENDED SHELF LIFE
18 months in unopened container
@ 40ºF (4ºC) to 90ºF (32ºC)

CAUTION
The addition of water to this product will change important physical and chemical characteristics. Do not thin or alter it in any way.

Vimasco manufactures under a stringent quality-assurance program in accordance with MIL-I-45208. Our manufacturing and Quality Assurance procedures are routinely audited by government and private industry inspectors.

In accordance with OSHA Standard 29 CFR 1910.12 (Right to Know Law) a Material Safety Data Sheet is available for the product and all Vimasco products.

ALL VIMASCO PRODUCTS ARE ASBESTOS FREE AND CONTAIN NO LEAD OR MERCURY COMPOUNDS.

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VIMASCO CORPORATION

MATERIAL SAFETY DATA SHEET — 16 Sections

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier 713 NG White & Red			October 14, 2014
Product Use Lagging Adhesive & Coating			
Manufacturer's Name Vimasco Corporation		Supplier's Name	
Street Address		Street Address	
City	State:	City	
Postal Code	Emergency Phone	Postal Code	Emergency Telephone
Prepared by:	Phone Number		

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients *(specific)*	%	CAS Number	LD_{50} of Ingredient *(specify species and route)*	LC_{50} of Ingredi
Hexylene Glycol	<0.5	107-41-5	LD50(rat) 21800-4700 (oral)	N/A
Vinyl Acetate-Dibutyl Maleate Polymer	10 - 15	25035-90-9	Not established	N/A
Phenol Isoproplyated Phosphate	<5	68937-41-7	Not established	N/A

SECTION 3 — HAZARDS IDENTIFICATION

Primary Routes of Entry: Dermal or inhalation

Eye: May be an irritant; **Skin:** Prolonged contact may cause irritation dermatitis;

Ingestion: No information assumed to cause gastro irritation. Low toxicity;

Inhalation: May cause irritation to the respiratory tracts. Overexposure could cause headache, nausea, fatigue.

SECTION 4 — FIRST AID MEASURES

Skin: Wash with soap and water
Eyes: Flush with clean water at least 15 minutes, if irritation persists, consult physician.
Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If irritation persists, consult physician
Ingestion: Give two glasses of water, induce vomiting, consult physician or poison control center. Never give anything by mouth to an unconscious person.

SECTION 5 — FIRE FIGHTING MEASURES

Flammable No	If yes, under which conditions?	
Means of Extinction: Foam, Alcohol Foam, CO_2, Dry Chemical, Water Fog		
Flashpoint: No flash to boiling 212°F (TCC)	Upper Flammable Limit (% by volume)	Lower Flammable Limit (% by volume)
Autoignition Temperature (°C)	Explosion Data: None known	Explosion Data — Sensitivity to Static Discharge
Hazardous Combustion Products : None known		
Product will not burn until water has boiled or evaporated. For dried film or residual solids, full protective equipment is recommended, including self-contained breathing apparatus		

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Spills should be collected for disposal; eliminate all ignition sources. Prevent material from entering drains, sewers and waterways. Before drying product may be washed away with water; after drying, remove with a paint scraper or strong solvent.

SECTION 7 — HANDLING AND STORAGE

Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

Protect from freezing.

Do not use empty containers for potables or edibles.

Store indoors at temperatures of 40°F to 90°F. Do not store at elevated temperatures, as containers could pressurize and rupture

SECTION 8 — EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure limits: Not available

In restricted ventilation areas, use approved chemical respirator, avoid inhalation of airborne particulates by using an approved respirator. General (mechanical) room ventilation is expected to be satisfactory. Supplementary local exhaust and respiratory protection may be needed in poorly ventilated spaces, or evaporation from large surfaces when spraying.

Personal Protection: Impervious gloves, goggles, face shield or other eyewear to protect from splash.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Viscous, paste	Odor : Mild latex odor	Wt/Gal: 10.8 lbs.
Specific Gravity: 1.29	Vapor Density (air = 1): Lighter than air	Viscosity: Approx. 75,000 cps
Evaporation Rate: Slower than ether	Boiling Point : 212°F to 216°F	Freezing Point : 32°F (0°)C
pH 8.0 to 9.0	VOC (lbs/gal): 55 gm/L; 0.48 lbs/gal (less water)	Volatile Volume: 60%

SECTION 10 — STABILITY AND REACTIVITY

Chemical Stability: Stable

Avoid materials that are incompatible with water and oxidizers.

Thermal decomposition will yield CO, CO_2, and fragmented short-chain hydrocarbons.

Decomposition Temp: Approx. 240^{o}F (115^{o}C)

SECTION 11 — TOXICOLOGICAL INFORMATION

Not available

SECTION 12 — ECOLOGICAL INFORMATION

Not available

SECTION 13 — DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable regulations. Review hazard section of this sheet before attempting cleanup. Spills may be slippery. Before drying, product may be washed away with water; after drying remove with a paint scraper or strong solvent. Empty containers are non hazardous under RCRA as industrial waste.

SECTION 14 — TRANSPORT INFORMATION

Not regulated.

SECTION 15 — REGULATORY INFORMATION

None

SECTION 16 — OTHER INFORMATION

For industry/professional use only. Not intended for retail sale or use by individual consumers.

HMIS Hazard Rating
Health: 1 Flammability: 0 Physical Hazard: 0
NFPAHealth: 1 Flammability: 0 Instability: 0