MATERIAL SAFETY DATA SHEET

G&W Electric Company
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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name:	**Novoid A (G&W Spec #220)**	
Chemical Family:	Mixture	
Synonyms:	High Voltage Insulating Compound	
Manufacturer:	**G&W Electric Co.** 305 W Crossroads Parkway Bolingbrook, IL 60440	**Emergency Phone Number** **CHEMTREC** (US & Canada)1-800-424-9300 (Overseas) 1-703-527-3887

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS No.	Wt.%
Petroleum Asphalt	Petroleum Asphalt	8052-42-4	>99%
Hydrogen Sulfide	Hydrogen Sulfide	7783-06-4	<0.1

Note: See Section 8 of MSDS for exposure limit data for ingredients.

SECTION 3. HAZARDS IDENTIFICATION

NATURE OF HAZARD

Appearance and Odor: Brown to black solid with faint petroleum odor.

Emergency Overview

Upon heating, asphalt fumes are released form product.
Asphalt fumes can be irritating. Odors may be objectionable.

Primary Route(s) of Exposure: inhalation, skin, eye

Potential Health Effects:

ACUTE (short term): Heated product may release asphalt fumes which may cause nose, throat, and mucous membrane irritation, and nausea, headaches or dizziness if inhaled. Prolonged or repeated skin contact with cold product may result in dryness, cracking, and irritation of the skin. Contact with hot product

will cause thermal burns. Long term skin exposure can increase sensitivity to the sun and cause discoloration. Eye contact may even cause severe irritation, redness, tearing and blurred vision. If ingested, this product may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. See Section 8 for exposure controls.

CHRONIC (long term): Prolonged or repeated skin contact with these products may result in irritation and dermatitis. Studies of workers exposed to asphalt have not established an association between asphalt and cancer or other lung disease in man. However this petroleum based product contains a trace amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. See Section 9 of MSDS for additional toxicological data.

Medical Conditions Aggravated by Exposure: Persons with a history of chronic respiratory or skin conditions may be at increased risk for worsening their condition from exposure to this product.

SPECIAL PRECAUTIONS
Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

SECTION 4. FIRST AID MEASURES

FIRST AID	
Eyes:	Flush eyes with running water for at least 15 minutes. Seek medical attention immediately.
Skin:	If hot material strikes the skin, immediately drench or immerse the area in water to assist cooling. If available, apply iced water or ice packs to the burned area (**DO NOT** use iced water or ice packs if the burned area covers more than 10% of the body, as this may contribute to shock.) **DO NOT** try to remove asphalt from a burn after it has cooled. Seek medical attention. Medical personnel can soften and remove cooled asphalt with petroleum jelly or mineral oil. For contact with cold material, clean exposed skin with waterless hand cleaner, then wash with mild soap and water. If irritation persists, seek medical attention.
Inhalation:	Move person to fresh air. Administer cardiopulmonary resuscitation (CPR) if a pulse is not detectable or if unable to breathe. Provide oxygen if breathing is difficult. Obtain immediate medical assistance.
Ingestion:	**DO NOT** induce vomiting. In general, no treatment is necessary unless large quantities are ingested. Seek medical advice.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point and Method	Over 400 °F (204 °C) Method - Cleveland Open Cup
Auto ignition Temperature (°C):	>650 °F (343 °C)
Flammability Limits:	Not Available
Extinguishing Media:	Water fog, foam CO_2 or dry chemical

Unusual Fire and Explosion Hazards: Hot asphalt may ignite flammable materials on contact. Hydrogen sulfide may be released when the product is heated. Do not apply or direct water into a container, vessel or storage tank containing hot asphalt material as it may cause violent eruptions and spreading of asphalt.

Hazardous Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide, sulfur oxides, and hydrogen sulfide. Other undetermined hydrocarbon fractions could be released in small quantities.

Special Fire Fighting Procedure:	Treat as a hydrocarbon type fire. Water can be applied to cool exterior surfaces of tanks, containers or vessels and to control a ground or spill type asphalt fires. Use self contained breathing apparatus (SCBA) in a sustained fire. Wear Protective Clothing Ensemble recommended as defined in NFPA 1500, 1997 or as updated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Release of this product to the land, water and air may require reporting to state, local and federal agencies.

Land Spill: Scoop up or vacuum material and put into suitable container for disposal as a non-hazardous waste.

Water Spill: This material will sink and disperse along the bottom of waterways and ponds. It can not easily be removed after it is waterborne; however, the material is non-hazardous in water.

Air Release: This material will settle out of the air. It can then be scooped up or vacuumed for disposal as a non-hazardous waste.

RCRA HAZARDOUS CLASS: Non-hazardous.

SECTION 7. HANDLING AND STORAGE

Storage & Use Temperature: Avoid heating asphalt within 25°F of actual flashpoint.

Storage Pressure: Not Applicable.

General: Hydrogen sulfide, an extremely flammable, colorless, highly toxic gas, is emitted from heated asphalt and may accumulate in storage tanks, bulk transport compartments or confined spaces. Prolonged breathing (greater than1 hour) of concentrations of hydrogen sulfide around 50 ppm can produce eye and respiratory tract (mouth, nose and throat) irritation. Concentrations of hydrogen.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient	OSHA PEL (8-hr TWA)	ACGIH TLV (8-hr TWA)

Asphalt	5 mg/m^3 (respirable) 15mg/m^3 (total)	0.5 mg/m^3 as benzene-extractable inhalable particulate
Hydrogen Sulfide	20ppm ceiling	10 ppm 15 ppm steel {5 ppm} [(a)]

[(a)]Denote ACGIH – 1999 Notice of Intended Changes. Values in {} are considered trial limits that may or may not be adopted.

PERSONAL PROTECTION	
Eyes:	Safety glasses or chemical goggles and face shield.
Skin:	Loose fitting, long sleeved shirt and long pants. Heat insulated, leather or lined neoprene coated gloves should be worn when working with hot asphalt materials. Sunscreens may decrease the potential for skin discoloration with chronic pressure.
Respiratory:	If irritation occurs or if the PEL or TLV for asphalt fumes is exceeded, use a NIOSH/MSHA approved air purifying respirator for dust, mist and fumes. In situations where the concentration of hydrogen sulfide exceeds the PEL or TLV, supplied air respirators or self contained breathing apparatus are required. Use respiratory protection in accordance with your company's respiratory protection program, local regulations or OSHA regulations under 29 CFR 1910-134.

Work/Hygienic Practices: Handle with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, yes, and clothing. Wash hands and arms frequently. Shower after exposure. Wash work clothes when soiled. Safety showers and eye wash stations should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor:	Brown to black solid. Odor type: Petroleum
Solubility:	Insoluble
Boiling Point (°C):	>1000 °F (538 °C)
Freezing Point:	Not Applicable
Physical State:	Solid
Specific Gravity (Water=1):	Not Applicable
Evaporation Rate (n-Butyl Acetate=1):	Not Applicable
Vapor Pressure:	3 mmHg @ 300 °F (149 °C)
Vapor Density (Air=1):	Not Applicable
Viscosity:	Solid at ambient temp
pH:	Not Applicable

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable
Incompatibility:	Do not allow hot, molten asphalt to contact water as this may cause violent eruptions and spreading of hot asphalt. Avoid contact with strong oxidizers.
Hazardous Decomposition Products:	Hydrogen sulfide and various hydrocarbon fractions may be released.
Hazardous Polymerization:	Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY: The table below indicates whether or not each agency has listed each ingredient as a carcinogen:

Ingredient	ACGIH	IARC	NTP	OSHA
Petroleum Asphalt	A4	3	No	No
Hydrogen Sulfide	No	No	No	No

A4 – Not classified as a Human Carcinogen
3 – Not classifiable

	LD_{50} Oral (g/kg)	LD_{50} Dermal (g/kg)	LC_{50} Inhalation (ppm)
Petroleum Asphalt	Not Available	Not Available	Not Available
Hydrogen Sulfide	Not Available	Not Available	444 (4-hr; rat) 634 (1-hr; mice)

Petroleum Asphalt: In March, 1987, the International Agency for Research on Cancer (IARC) classified bitumens (such as petroleum asphalt in this product) as a Group 3 material, "not classifiable as to its carcinogenicity to humans." This classification was made based on inadequate evidence for the carcinogenicity of undiluted air-refined bitumens in experimental animals and in adequate evidence that bitumens alone are carcinogenic to humans. However, aspahlt does contain a small amount of polycyclic aromatic hydrocarbons which have been shown to cause cancer and respiratory damage in animals. NIOSH recently conducted mouse skin painting studies using selected fraction of asphalt fume condensate. Skin application of the condensate fractions resulted in skin tumors in laboratory mice.

SECTION 12. ECOLOGICAL INFORMATION

This material is not toxic to animals, plants, or fish.

SECTION 13. DISPOSAL CONSIDERATIONS

See Section 6 for Disposal Considerations.

SECTION 14. TRANSPORT INFORMATION

Product is a solid below 212 °F (100 °C) and is not regulated. When shipped at a temperature of 212 °F (100 °C) or above.

DOT Shipping Names: Elevated temperature, liquid, n.o.s.

Hazard Class or Division: 9 **Secondary:** None

Identification No.: UN 3257 **Packing Group:** III

Label(s) required (if not excepted): Class 9

Special Provisions: None **Packaging Exceptions:** None

Non-Bulk Packaging: None **Bulk packaging:** 173.247

EPA Hazardous Substances: Hydrogen Sulfide **RQ:** 100 lbs.

Quantity Limitations: **Passenger Aircraft:** Forbidden
Cargo Aircraft: Forbidden

Marine Pollutants: None

Freight Description: Asphalt

Hazardous Material Shipping Description: Elevated temperature, liquid, n.o.s., 9, UN3257, PGIII

ERG Number: 128

TRANSPORST INFORMATION - **Canada**

Proper Shipping Name: Not Regulated

TDG Hazard Classification: **(Primary):** None **(Secondary):** None

IMO Classification: None

ICAO/IATA Classification: None

Product Identification Number: None

Packing Group: None

Control Temperature: None **Emergency Temperature:** None

Schedule XII Quantity Restriction: None

Reportable Quantity for US Shipments: None

IATA Packing Instructions: **Passenger/Cargo:** None

Cargo Only: None
Limited Quantity: None

Maximum Net Quantity per Package: **Passenger/Cargo:** None
Cargo Only: None
Limited Quantity: None

Special Provisions: None

SECTION 15. REGULATORY INFORMATION

TSCA Status: Each ingredient is on the Inventory or is not required to be listed.

NSR Status (Canada): Each ingredient is on the DSL or is not required to be listed.

SARA Title III:	**Hazard Categories:**		**Reportable Ingredients:**	
	Acute Health:	Yes	Sec. 302/304:	None
	Chronic Health:	Yes	Sec. 313:	None
	Fire Hazard:	No		
	Pressure Hazard:	No		
	Reactivity Hazard:	No		

California Proposition 65: This material contains detectable amounts of some chemicals known to the Sate of California to cause cancer.

Clean Air Act: No ingredients are listed.

WHMIS (Canada): Status: Not controlled:
WHMIS Classifications: None

SECTION 16. OTHER INFORMATION

HMIS and NFPA Hazard Rating:	**Category**	**HMIS**	**NFPA**
	Acute Health	1	0
	Flammability	1	1
	Reactivity	0	0

NFPA Unusual Hazards: No water.
HMIS Personal Protection: To be supplied by user depending upon use.

DATE: 07/02/12	SUPERSEDES: 07/01/09

NOTICE: This Material Safety Data Sheet (MSDS) conforms to the requirements of OSHA 29 CFR Part 1910 and State of California CCR Title 8, and the recommendations in ANSI Z400.1. The information it contains is offered in good faith as accurate. We have reviewed the information contained in this MSDS which we received from sources outside our company. We believe that information to be correct, but we make no representations as to the accuracy or completeness thereof. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. We disclaim any liability for damage or injury which results from the use of the above information and nothing contained therein shall constitute a guarantee, warranty (including warranty of merchantability) or representation (including freedom from any patent liability) by us with respect to the information, the product described, or their use for any specific purpose, even if that purpose is known to us. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.