SAFETY DATA SHEET

DATE: 05/26/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Novoid X

Brand: Novoid

Company: G&W Electric Company
305 W. Crossroads Parkway,
Bolingbrook, Illinois, 60440

Telephone: (708) 388-5010
Fax: (708) 388-0755
Emergency Phone #: CHEMTREC
United States & Canada- (800) 424-9300
Overseas- (703) 527-3887

Recommended use of the chemical and restrictions on use

High Voltage Insulating Compound

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification

Skin Sensitization/Irritant (Category 1)

Signal Word

Warning

Symbols (GHS pictograms)

Hazard statement(s)

May cause an allergic skin reaction

Heated product may cause severe skin burns and eye damage

Precautionary statement(s)

Prevention	Response	Storage	Disposal
Avoid breathing dusts/fumes/vapors. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/clothing, eye protection and/or face shield defined within section 8. Contaminated clothing must not be allowed out of the work place.	If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Rinse skin with water/shower. Wash Contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for fifteen minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor and seek medical advice if exposed to molten material or if skin irritation/rash occurs.	Store in cool, dry, well-ventilated area.	Dispose of contents/container to in accordance with local/regional/national/international regulations.

Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: G&W Spec. #222

Component	CAS #	Concentration
Castor Oil	8001-79-4	80%
Vinsol Resin (Pine Resin)	8050-09-7	20%

4. FIRST AID MEASURES

General Advice:

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician or seek medical attention.

Skin contact: Wash solid material with plenty of soap and water. Remove contaminated clothing. Thoroughly wash clothes before reuse. Get medical attention if irritation develops or persists. See Note to Physician.

If molten material- cool burns with water and cold packs. Do not put ice directly on the skin. Do not attempt to remove solidified material from the skin as severe tissue damage may result. Consult a physician or seek medical attention.

Eye contact: Remove contact lenses if feasible. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

If molten material- cool burns with plenty of low-pressure water. Get immediate medical attention.

Ingestion: No adverse health effects are expected from accidental ingestion of small amounts of this product. Never give anything by mouth to an unconscious person.

Rinse mouth with water and seek medical attention if gastrointestinal irritation persists. For ingestion of large amounts, do not induce vomiting and get immediate medical attention.

Most important symptoms/effects, acute and delayed: Prolonged exposure to smoke or fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing, or breathing difficulty.

Immediate medical attention and special treatment needed, if any: No information available.

Note to Physician: For hot molten or hot liquid product- material should not be forcibly pulled from the skin. Mineral oil may be used to loosen and soften the material. This product contains rosin or a rosin derivative. Rosin and some of its derivatives have been reported to cause an allergic skin reaction in susceptible individuals after repeated or prolonged skin contact.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: In case of fire use Carbon Dioxide, dry chemical, or alcohol-resistant foam.

Specific hazards from combustion: Combustion may generate Carbon Monoxide and Carbon Dioxide.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus pressure demand approved by an appropriate regulatory agency and full protective gear when fighting fires involving this product.

Hot molten or hot liquid product- apply water from a safe, protected location to avoid body contact with hot resin. Cool containers with water to prevent rupture.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures & Personal precautions: Use appropriate personal protective equipment. Avoid dust formation. Avoid breathing in dust. Avoid breathing vapors, mists, and/or gas. Avoid contact with skin or eyes. Ensure adequate ventilation.

Protective equipment: For personal protective equipment, see section 8.

Environmental precautions: Do not let product enter drains/waterways.

Methods and materials for containment and cleaning up: Isolate and contain spill. Place product in a suitable, closed container for disposal. Product that has not been contaminated can be returned to original container. Use appropriate personal protective equipment.

For hot molten or hot liquid- wear personal protective equipment as required (see section 8). Contain spilled material and allow it to cool and solidify. Do not apply water. Water contact may result in foaming or splattering, which can increase the potential for eye or skin burns. After solidification place product in a suitable, closed container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with skin and eyes. Avoid formation of dust and/or aerosols. Provide appropriate exhaust ventilation in operations where dust and/or aerosols are formed. Keep container closed when not in use.

Conditions for Safe Storage: Store in cool, dry, well-ventilated area away from heat, ignition sources and direct sunlight. Keep container tightly closed.

Incompatibilities: Strong Oxidizing Agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA PEL	ACGIH TLV	Additional Occupational Exposure Limits
Castor Oil	None Established	None Established	None Established
*Vinsol Resin	None Established	None Established	None Established

** Vinsol resin has exposure limits for material if used under conditions that would generate dust (Particulates Not Otherwise Regulated occupational exposure limit). This occupational exposure limit for PNOR is regulated by OSHA as 15 mg/m^3 TWA and has an additional recommended exposure limit by ACGIH as 10 mg/m^3 TWA (inhalable particulates).*

Appropriate engineering controls: Use only in a well ventilated area. If operations generate dust or fumes; use process enclosures, local exhaust ventilation, or other engineering controls to minimize airborne contaminant levels below recommended exposure limits. Eye wash stations and safety showers should be easily accessible to areas where product is used.

Personal Protective Equipment: Only use Personal Protective Equipment that has been tested and approved under government standards.

Respiratory protection: When conditions generate airborne contaminant levels above the recommended exposure limits, use an approved NIOSH respirator with multipurpose combination cartridges to supplement engineering controls. Respiratory protection is necessary when material is overheated, ventilation is poor and/or when exposure to airborne contaminants exceeds acceptable limits.

Hand protection: Chemical Resistant Nitrile Gloves. Minimum thickness= 0.11 mm.

Eye protection: Safety Goggles and/or Face Shield.

Skin and body protection: Complete body suit impervious to chemicals (skin & splash protection).

Hot or Molten Product: Personnel exposed to hot molten or hot liquid material should wear protective clothing that provides protection against thermal burns. Required personal protective equipment includes but is not limited to the following: a) long –sleeve protective shirt, long pants, and work shoes; b) hard hat, safety goggles, and face shield; c) long-cuff gloves (Gauntlet type-extending beyond the wrist); d) lined rainsuit with protective hood or shoulder shroud; e) full aluminized or thermal suit with hood.

Hygiene measures: Reasonable safety precautions and cleanliness. Wash hands before breaks and at the end of the work-shift.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark Brown, Solid

Odor: No information available

Odor threshold: No information available.

pH: No information available.

Melting point: No information available.

Freezing point: No information available.

Initial boiling point and boiling range: No information available.

Flash point: 450 ^{o}F

Evaporation rate: 0 (Butyl Acetate = 1)

Flammability: No information available.

Upper/lower flammability or explosive limits: No information available.

Vapor pressure: No information available.

Partition coefficient: n-octanol/water: No information available.

Relative density: No information available.

Solubility: Nil

Auto-ignition temperature: No information available.

Viscosity: No information available.

Decomposition temperature: No information available.

Specific Gravity: 1.17 (Water = 1)

10. STABILITY AND REACTIVITY

Reactivity: No information available.

Chemical stability: Stable under recommended handling and storage conditions.

Possibility of hazardous reactions: No information available.

Conditions to avoid: Heat, ignition sources, and open flames.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Burning liberates carbon monoxide, carbon dioxide, and smoke.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

To the best of our knowledge; chemical, physical, and toxicological properties have not been thoroughly investigated.

Information on likely routes of exposure: Routes of entry anticipated: Oral, Dermal, and Inhalation.

Inhalation: Exposure to aerosols or particulates from heated material may cause adverse lung effects if high concentrations are inhaled.

Ingestion: Ingestion may cause gastrointestinal irritation and diarrhea.

Skin: Heated material can cause thermal burns.

Eye contact: Heated material can cause thermal burns.

Symptoms of exposures: No specific information available.

Delayed and immediate effects: No known specific effects or critical hazards.

Chronic effects from short- and long-term exposure: No known specific effects or critical hazards.

Carcinogenicity: No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), or the European Commission (EC).

12. ECOLOGICAL INFORMATION*

Ecotoxicity (Aquatic and terrestrial): No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility in soil: No information available.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS*

Waste residue: Avoid contact of spilled material with soil and prevent runoff entering surface waterways. Often surplus and non-recyclable solutions to a licensed disposal company.

Handling of waste residue: Use all appropriate personal protective equipment while transferring material to a sealable, appropriate container for disposal.

Methods of disposal: Consult an environmental professional to determine if local, regional, or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage, or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

Disposing of contaminated packaging: Dispose of as unused product. Labels should not be removed from containers until they have been cleaned.

14. TRANSPORT INFORMATION*

At ambient temperature: This product is not subject to DOT regulations.

	UN
UN Number	Not Applicable
UN Proper Shipping Name	Not Applicable
Transport Hazard Class	Not Applicable
Packing Group	Not Applicable
Transport in Bulk	Not Applicable

15. REGULATORY INFORMATION*

Safety, health, and environmental regulations specific for the product: No known specific national and/or regional regulations applicable to this product (including its ingredients).

United States Regulations

United States inventory (TSCA 8b): This material is listed or exempted.

SARA Title III Section 302: This material is not regulated.

SARA Title II Section 311/312: This material is not regulated.

SARA Section 313: This material is not regulated.

CERCLA Sections 102a/103: This material is not regulated.

California Proposition 65: This material is not regulated.

International Regulations

Korea inventory: This material is listed or exempted.

Europe inventory: This material is listed or exempted.

Canada inventory: This material is listed or exempted.

16. OTHER INFORMATION

Date of preparation: 05/26/2015

NFPA Rating (Hot, molten material):

Health hazard: 3
Fire: 1
Reactivity Hazard: 0

Key to abbreviations:

GHS- Globally Harmonized System of Classification of Labeling Chemicals
IATA- International Air Transport Association
IBC- Intermediate Bulk Container
IMDG- International Maritime Dangerous Goods

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.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29CFR 1910.1200(g)(2)).