

## SECTION 1: PRODUCT & COMPANY IDENTIFICATION

### 1.1 Product Identifiers

Product Name: NANOMYTE® SR-110EC (Part B)

CAS Number: A CAS number has not been assigned to this material.

### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Identified Uses: Hydrophobic coating for plastics, metals, and other surfaces

### 1.3 Details of the Supplier of the Safety Data Sheet

Company: NEI Corporation

Address: 400 Apgar Drive, Unit E | Somerset, NJ 08873 – USA

Phone: +1 (732) 868-3141

Fax: +1 (732) 868-3143

Email: productinfo@neicorporation.com

### 1.4 Emergency Telephone Numbers

Manufacturer: +1 (732) 868-3142 (9am to 6pm EST / UTC -0500)

U.S. Poison Control Center: +1 (800) 222-1222

ChemTel (North America): +1 (800) 255-3924 (during transportation only)

ChemTel (International): +1 (813) 248-0585 (during transportation only – collect calls accepted)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Dermal (Category 3), H311 [Methanol]

Acute toxicity, Inhalation (Category 3), H331 [Methanol]

Acute toxicity, Oral (Category 3), H301 [Methanol]

Eye irritation (Category 2A), H319 [Ethanol, 2-Butanol]

Flammable liquids (Category 3), H226 [PGME]

Reproductive toxicity (Category 1B), H360 [PGME]

Specific target organ toxicity - single exposure (Category 1), H370 [Methanol]

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336 [PGME, 2-Butanol]

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 [2-Butanol]

### 2.2 GHS Label elements, including precautionary statements

Pictogram(s):



Signal Word: Danger

#### Hazard Statement(s):

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H319 Causes serious eye irritation

H226 Flammable liquid and vapor

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H360 May damage fertility or the unborn child

H370 Causes damage to organs

#### Precautionary Statement(s):

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat / sparks / open flames / hot surfaces — no smoking

P233 Keep container tightly closed

P261 Avoid breathing dust / fume / gas / mist / vapors / spray

- P264 Wash skin thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves, protective clothing, eye protection, face protection
- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P337 + P313 If eye irritation persists: Get medical advice/ attention
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P403 + P233 + P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- P501 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

May form explosive peroxides [2-Butanol]

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substances

Component Name / Synonym	CAS #	Formula	EC #	Percentage
Propylene Glycol Monomethyl Ether [PGME]	107-98-2	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	203-539-1	45 – 55 wt. %
Distilled Water	7732-18-5	H <sub>2</sub> O	231-791-2	22 – 30 wt. %
Proprietary Resin	Proprietary	n/a	n/a	10 – 15 wt. %
Ethyl Alcohol [Ethanol]	64-17-5	C <sub>2</sub> H <sub>6</sub> O	200-578-6	2 – 6 wt. %
Methyl Alcohol [Methanol]	67-56-1	CH <sub>4</sub> O	200-659-6	2 – 5 wt. %
Butyl Alcohol [2-Butanol]	78-92-2	C <sub>4</sub> H <sub>10</sub> O	201-158-5	1 – 3 wt. %

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of First Aid Measures

**General Advice:**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**After Inhalation:**

If breathed in, remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Call a POISON CENTER or doctor/ physician if you feel unwell.

**After Skin Contact:**

Immediately remove all contaminated clothing. Rinse skin with copious amounts of water / shower. Seek medical attention if irritation develops.

**After Eye Contact:**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice / attention.

**After Ingesting:**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a POISON CENTER or doctor/physician if you feel unwell.

### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

No Data Available

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

### 5.2 Special Hazards Arising from the Substance or Mixture

Carbon oxides. Flash back possible over considerable distance; container explosion may occur under fire conditions; vapors may form explosive mixture with air; may form peroxides of unknown stability.

### 5.3 Advice for Firefighters

Wear full protective clothing and self-contained breathing apparatus approved for firefighting

### 5.4 Other Information

Use water spray to cool unopened containers

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid breathing vapors, mist, or gas. Keep unprotected persons away. Eliminate all sources of ignition or overheating. Beware of vapors accumulating to form explosive concentrations. Ventilate area and wash spill site after material pickup is complete.

### 6.2 Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and Materials for Containment and Cleaning Up

Dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material. Dispose of as a chemical waste in accordance with current local, state and federal regulations.

### 6.4 Reference to Other Sections

For safe handling, see Section 7; for personal protection, see Section 8; for disposal, see Section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Appropriate personal protective equipment should be used at all times. Provide good ventilation or extraction. Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapor or mist. Keep away from heat, sparks, flames and other sources of ignition.

### 7.2 Conditions for Safe Storage (including any incompatibilities)

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Air sensitive. May form explosive peroxides upon prolonged storage. May form peroxides in contact with air. Storage class (TRGS 510): Flammable liquids

### 7.3 Specific End Uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control Parameters

#### Components with workplace control parameters:

Component Name	CAS #	Value	Control Parameters	Basis
PGME	107-98-2	TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	100 ppm 360 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits (REL)
<b>Remarks</b>	Upper Respiratory Tract irritation; Eye irritation; Not classifiable as a human carcinogen			
Ethanol	64-17-5	TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits (REL)
<b>Remarks</b>	Upper Respiratory Tract irritation; Confirmed animal carcinogen (unknown relevance to humans)			

Component Name	CAS #	Value	Control Parameters	Basis
Methanol	67-56-1	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	200 ppm 260 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits (REL)
		TWA	200 ppm 260 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
<b>Remarks</b>	Headache; Nausea; Dizziness; Eye damage; Danger of cutaneous (skin) absorption			
2-Butanol	78-92-2	TWA	100 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	100 ppm 305 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits (REL)
		TWA	150 ppm 450 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
<b>Remarks</b>	Central Nervous System impairment; Upper Respiratory Tract irritation			

## 8.2 Exposure Controls

### Appropriate Engineering Controls

Handle in accordance with good industrial hygiene and safety practice. Keep away from food and beverages. Provide good ventilation or extraction. Safety shower and eye bath recommended. Wash hands before breaks & after workday.

### Personal Protective Equipment

#### Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Eye / Face Protection:

Face shield and/or safety glasses should be worn. Use eye protection equipment that is tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Hand Protection:

Handle with chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands after use.

#### Skin and Body Protection:

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Control of Environmental Exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical and Chemical Properties

Form: Liquid, clear

Color: Colorless

Odor: Alcohol smell

pH: 5

Melting point/range: No Data Available

Density (25 °C): 1.02 g/ml

Viscosity (20 °C): 10 – 15 cP

Melting / Freezing Point: No Data Available

Initial Boiling Point / Range: No Data Available

Flashpoint (closed cup): No Data Available

Evaporation Rate: No Data Available

Flammability (solid, gas): No Data Available

Upper Explosion Limit: No Data Available  
 Lower Explosion Limit: No Data Available  
 Vapor Pressure (20.0 °C): No Data Available  
 Vapor Density: No Data Available  
 Relative Density: No Data Available  
 Water Solubility: No Data Available  
 Auto-ignition Temperature: No Data Available  
 Decomposition Temperature: No Data Available  
 Viscosity: No Data Available  
 Explosive Properties: No Data Available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

No Data Available

### 10.2 Chemical Stability

Stable under recommended storage conditions (see Section 7.2)

May form peroxides over periods of prolonged storage. Date container and periodically test for peroxides.

### 10.3 Possibility of Hazardous Reactions

Vapors may form explosive mixture with air.

### 10.4 Conditions to Avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

### 10.5 Incompatible Materials

Strong oxidizing agents; Alkali metals; Peroxides; Acids; Reducing agents; Halogens

### 10.6 Hazardous Decomposition Products

Under fire conditions: Carbon Oxides

Other decomposition products: No Data Available

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on Toxicological Effects (of components with known values)

Acute Toxicity	<u>PGME (45-55%)</u>	<u>Ethanol (2-6%)</u>	<u>Methanol (2-5%)</u>	<u>2-Butanol (1-3%)</u>
Oral LD50:	11,700 mg/kg (Rat)	10,470 mg/kg (Rat)	1,187-2,769 mg/kg (Rat)	2193 mg/kg (Rat)
Inhalation LC50:	1,000 ppm (Rat – 5h)	30,000 mg/l (Rat – 4h)	128.2 mg/l (Rat – 4h)	No data available
Dermal LD50:	13,000 mg/kg (Rabbit)	15,800 mg/kg (Rabbit)	17,100 mg/kg (Rabbit)	2,000 mg/kg (Rat)
<b>Skin corrosion/irritation</b>	No data available	Skin – Rabbit (24h) Result: No irritation	Skin – Rabbit (24h) Result: No irritation	Skin – Rabbit (4h) Result: No irritation
<b>Serious eye damage/eye irritation</b>	Eyes – Rabbit (24h) Result: Mild irritation	Eyes – Rabbit (24h) Result: Moderate irritation	Eyes – Rabbit (24h) Result: No irritation	No data available
<b>Respiratory or skin sensitization</b>	No data available	No data available	GPMT - Guinea pig No skin sensitization	GPMT - Guinea pig No skin sensitization
<b>Germ cell mutagenicity</b>	No data available	No data available	Ames test (S. typhimuriu) Result: negative	Ames test (S. typhimuriu) Result: negative
<b>Carcinogenicity</b>	Contains a component that is a suspected human carcinogen (ethanol) Carcinogenicity – Mouse – Oral; Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver; Tumors; Blood: Lymphomas including Hodgkin's disease.			

- IARC:** No component of this product (present at levels greater than or equal to 0.1%) is identified as a probable, possible, or confirmed human carcinogen by IARC.
- NTP:** No component of this product (present at levels greater than or equal to 0.1%) is identified as a known or anticipated carcinogen by NTP.
- OSHA:** No component of this product (present at levels greater than or equal to 0.1%) is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity**

- Ethanol:** Reproductive toxicity - Human - female – Oral | Effects on Newborn: Drug dependence
- Methanol:** Damage to fetus not classifiable | Fertility classification not possible from current data.
- 2-Butanol:** Reproductive toxicity - Rat – Inhalation | Effects on Fertility: Post-implantation mortality | Effects on Embryo or Fetus: Fetal death; fetotoxicity | Specific Developmental Abnormalities: Musculoskeletal system.

**Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System)**

- PGME:** Nervous System – May cause drowsiness or dizziness
- Methanol:** Causes damage to organs

**Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System)**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration Hazard**

No aspiration toxicity classification

**Additional Information**

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

**PGME** (RTECS: UB7700000)

**Potential Symptoms:** Stomach – Irregularities – Based on Human Evidence

**Ethanol** (RTECS: KQ6300000)

**Potential Symptoms:** Central Nervous System Depression; Narcosis; Damage to the Heart; Stomach Irregularities

**Methanol** (RTECS: PC1400000)

**Potential Symptoms:** Methyl alcohol may be fatal or cause blindness if swallowed. Effects due to ingestion may include: Headache, Dizziness, Drowsiness, Metabolic Acidosis, Coma, Seizures. Symptoms may be delayed. Causes damage of the liver & kidney. Stomach - Irregularities - Based on Human Evidence

**2-Butanol** (RTECS: EO1750000)

**Potential Symptoms:** Nausea, Dizziness, Headache

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity (of components with known values)**

**Ethanol**

- Toxicity to fish (LC50): Pimephales promelas (fathead minnow) - 14,200 mg/l - 96 h
- Toxicity to daphnia and other aquatic invertebrates (EC50): Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h
- Toxicity to algae (EC50): Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h (OECD Test Guideline 201)

**Methanol**

- Toxicity to fish (LC50): Lepomis macrochirus (Bluegill) - 15,400.0 mg/l - 96 h
- Toxicity to daphnia and other aquatic invertebrates (EC50): Daphnia magna (Water flea) - > 10,000.00 mg/l - 48 h
- Toxicity to algae (EC50): Growth inhibition - Scenedesmus capricornutum (fresh water algae) - 22,000.0 mg/l - 96 h

**2-Butanol**

- Toxicity to fish (LC50): Pimephales promelas (fathead minnow) - 3,670 mg/l - 96 h
- Static Test - Leuciscus idus melanotus - 3,520 - 3,540 mg/l - 48 h
- Toxicity to daphnia and other aquatic invertebrates (EC50): Daphnia magna (Water flea) - 4,227 mg/l - 48 h

## 12.2 Persistence and Degradability

**Ethanol:** Aerobic - Exposure time 28 d | Result: 95% - Readily biodegradable

**Methanol:** Aerobic - Exposure time 5 d | Result: 72 % - Rapidly biodegradable

**2-Butanol:** Aerobic - Exposure time 5 d | Result: 86 % - Readily biodegradable

## 12.3 Bioaccumulative Potential

**Ethanol:** Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

**Methanol:** Cyprinus carpio (Carp) - 72 d at 20 °C - 5 mg/l | Bioconcentration factor (BCF): 1.0

**2-Butanol:** No data available

## 12.4 Mobility in Soil

No Data Available

## 12.5 Results of PBT and vPvB Assessment

PBT/vPvB assessment not available as chemical safety assessment not conducted

## 12.6 Other Adverse Effects

No Data Available

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated Packaging

Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 Department of Transportation (DOT - US)

UN number: 1866                                      Class: 3                                      Packing Group: III

Proper Shipping Name: Resin Solution, flammable

### 14.2 International Maritime Dangerous Goods (IMDG)

UN number: 1866                                      Class: 3                                      Packing Group: III

Proper Shipping Name: Resin Solution, flammable

### 14.3 International Air Transport Association (IATA)

UN number: 1866                                      Class: 3                                      Packing Group: III

Proper Shipping Name: Resin Solution, flammable

### 14.4 Additional Transport Information

HS Code (first 6 digits) / HTS-US #: 3208.90.0000

## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

<u>Component</u>	<u>CAS #</u>	<u>Revision Date</u>
Methanol	67-56-1	01-July-2007
2-Butanol	78-92-2	24-April-1993

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

The following product components are cited on the lists below:

<u>Component</u>	<u>CAS #</u>	<u>List Citations</u>	<u>Revision Date</u>
PGME	107-98-2	PA, MA, NJ Right to Know	01-April-1994
Ethanol	64-17-5	PA, MA, NJ Right to Know	03-March-2007
Methanol	67-56-1	PA, MA, NJ Right to Know	01-July-2007
2-Butanol	78-92-2	PA, MA, NJ Right to Know	24-April-1993

**CALIFORNIA PROPOSITION 65**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm

<u>Component</u>	<u>CAS #</u>	<u>Revision Date</u>
Methanol	67-56-1	16-March-2012

**15.2 Chemical Safety Assessment**

A chemical safety assessment was not carried out for this product

**SECTION 16: OTHER INFORMATION**

**REACH Number**

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

**HMIS Classification**

Health Hazard: 2  
Flammability Hazard: 3  
Physical Hazard: 0

**NFPA Rating**

Health Hazard: 2  
Flammability Hazard: 3  
Reactivity Hazard: 0

**Further Information**

NEI has attempted to provide current and accurate information to the best of its knowledge. NEI makes no representations regarding the accuracy or completeness of the information and assumes no liability for any loss, damage, injury of any kind which may result from or arise out of the use of or reliance on the information by any person. Employers should use this information only as a supplement to other information gathered by them and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.