

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

1.1 Product Identifiers

Product Name: NANOMYTE[®] SuperCN (Part A)

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: Highly 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)

Flammable Liquids (Category 2), H225 – Methanol, Ethanol

Flammable Liquids (Category 3), H226 – 2-Butanol, PGME

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

Acute toxicity, Oral (Category 3), H301 – Methanol

Acute toxicity, Dermal (Category 3), H311 – Methanol

Acute toxicity, Inhalation (Category 3), H331 – Methanol

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

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

Reproductive toxicity (Category 1B), H360 – PGME

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

2.2 GHS Label elements, including precautionary statements

Pictogram(s): 

Signal Word: Danger

Hazard Statement(s):

H225 Highly flammable liquid and vapor

H226 Flammable liquid and vapor

H319 Causes serious eye irritation

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

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):

- P210 Keep away from heat / sparks / open flames / hot surfaces — no smoking
- P233 Keep container tightly closed
- P260 Do not breathe 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 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P311 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician.
- 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
- P363 Wash contaminated clothing before reuse
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P412 Store at temperatures not exceeding 5 °C / 41 °F. 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	Formula	CAS #	Concentration
Water	H ₂ O	7732-18-5	40 – 47%
1-Methoxy-2-propanol [PGME]	C ₄ H ₁₀ O ₂	107-98-2	30 – 35%
Proprietary Resin	n/a	n/a	10 – 14%
Ethanol	C ₂ H ₆ O	64-17-5	3 – 9%
2-Butanol	C ₄ H ₁₀ O	78-92-2	2 – 4%
Methanol	CH ₃ OH	67-56-1	1 – 3%

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:

Remove all contaminated clothing. Wash skin with soap and 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. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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 prolonged or repeated breathing of vapor or mist. Avoid contact with skin and eyes. Use explosion-proof equipment. Keep away from sources of ignition – no smoking. Take measures to prevent the buildup of electrostatic charge.

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. Forms explosive peroxides on prolonged storage May form peroxides on contact with air. Dry residue is explosive. Test for peroxide formation periodically and before distillation.

Storage class (TRGS 510): Flammable liquids

7.3 Specific End Uses

A part 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 #	Concentration	Value	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Propylene glycol methyl ether (PGME)	107-98-2	30 – 35%	TWA	50 ppm	n/a	100 ppm 360 mg/m ³
Remarks:	Upper Respiratory Tract irritation; Eye irritation; Not classifiable as a human carcinogen					
Ethanol	64-17-5	3 – 9%	TWA	1,000 ppm	1,000 ppm 1,900 mg/m ³	1,000 ppm 1,900 mg/m ³
Remarks:	Upper Respiratory Tract irritation; Confirmed animal carcinogen with unknown relevance to humans					
2-Butanol	78-92-2	2 – 4%	TWA	100 ppm 303 mg/m ³	150 ppm 450 mg/m ³	100 ppm 305 mg/m ³
Remarks:	Central Nervous System impairment; Upper Respiratory Tract irritation					
Methanol	67-56-1	1 – 3%	TWA	200 ppm 262 mg/m ³	200 ppm 260 mg/m ³	200 ppm 260 mg/m ³
Remarks:	Headache					

Notes: PEL – Permissible Exposure Limit; TLV – Threshold Limit Values; REL – Recommended Exposure Limits

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

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).

Skin 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.

Body Protection:

Impervious, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) 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).

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:	Mild
pH:	No data available
Freezing point/range:	No data available
Initial Boiling point/range:	No data available
Flashpoint:	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:	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
Oxidizing Properties:	No data available

9.2 Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No Data Available

10.2 Chemical Stability

May form peroxides on 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

10.5 Incompatible Materials

Acid chlorides, acid anhydrides, strong oxidizing agents, alkali metals, reducing agents, acids, halogens, peroxides

10.6 Hazardous Decomposition Products

Other decomposition products: no data available; Under fire conditions: see Section 5

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute Toxicity	<u>PGME (30-35%)</u>	<u>Ethanol (3-9%)</u>	<u>2-Butanol (2-4%)</u>	<u>Methanol (1-3%)</u>
Oral LD50:	11,700 mg/kg (mouse)	10,470 mg/kg (Rat)	2,193 mg/kg (Rat)	1,187 - 2,769 mg/kg (Rat)
Inhalation LC50:	10,000 ppm (rat – 5h)	30,000 mg/l (Rat - 4h)	No Data Available	128.2 mg/l (Rat - 4h)
Dermal LD50:	13,000 mg/kg (rabbit)	15,800 mg/kg (Rabbit)	2,000 mg/kg (Rabbit)	17,100 mg/kg (Rabbit)
Skin corrosion/irritation	No data available	Skin - Rabbit No skin irritation – 24 h	Skin - Rabbit No skin irritation	Skin - Rabbit No skin irritation – 4h
Serious eye damage/eye irritation	Eyes - Rabbit Mild eye irritation (24h)	Eyes – Rabbit Moderate eye irritation	Eyes – Rabbit No eye irritation	No Data Available
Respiratory or skin sensitization	No Data Available	No Data Available	Maximisation Test (GPMT) - Guinea pig Result: No sensitization	Maximisation Test (GPMT) - Guinea pig Result: No sensitization

(COMPONENTS)	PGME (30-35%)	Ethanol (3-9%)	2-Butanol (2-4%)	Methanol (1-3%)
Germ cell mutagenicity	No Data Available	No Data Available	Ames test - S. typhimurium - negative	Ames test - S. typhimurium - negative

Carcinogenicity

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 probable, possible or confirmed human carcinogen by IARC.

ACGIH: Group A3: Confirmed animal carcinogen with unknown relevance to humans (ethanol only)

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

PGME: No Data Available

Ethanol: Reproductive toxicity - Human - female – Oral; Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.

2-Butanol: Reproductive toxicity – Rat – Inhalation; Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Musculoskeletal system.

Developmental Toxicity - Rat – Inhalation; Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Methanol: Damage to fetus not classifiable; Fertility classification not possible from current data.

Specific target organ toxicity - single exposure (Globally Harmonized System)

PGME: May cause drowsiness or dizziness

Ethanol: No data available

2-Butanol: Respiratory system, central nervous system

Methanol: Causes damage to organs (liver, kidney)

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No Data Available

Aspiration hazard

2-Butanol: Aspiration into the lungs may result in chemical pneumonitis

Additional Information

PGME (RTECS: UB7700000)

Stomach - Irregularities - Based on Human Evidence

Ethanol (RTECS: KQ6300000)

Exposure Routes: inhalation, ingestion, skin and/or eye contact

Symptoms of Short Term Exposure: The substance irritates the eyes. Inhalation of high concentration of vapor may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system.

Symptoms of Long Term Exposure: The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

2-Butanol (RTECS: EO1750000)

Exposure Routes: inhalation, ingestion, skin and/or eye contact

Symptoms of Short Term Exposure: The substance is irritating to the eyes. Exposure far above the OEL could cause lowering of consciousness. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

Symptoms of Long Term Exposure: The liquid defats the skin.

Methanol (RTECS: PC1400000)

Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact

Symptoms of Short Term Exposure: The substance is irritating to the eyes, the skin and the respiratory tract. The substance may cause effects on the central nervous system, resulting in loss of consciousness.

Symptoms of Long Term Exposure: Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the central nervous system, resulting in persistent or recurring headaches and impaired vision. To the best of our knowledge, the chemical, physical, & toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The toxicological properties of this material have not been fully investigated.

12.2 Persistence and Degradability

No Data Available

12.3 Bioaccumulative Potential

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

Ground Limited Quantities: 5L (net) / 30kg (gross)

Air Excepted Quantities (EQ): 30mL (net) / 1L (gross) [E1]

Air Limited Quantities (LQ): 10L (gross) [Y344]

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

The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>Component Name</u>	<u>CAS #</u>
Methanol	67-56-1
2-Butanol	78-92-2

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>
PGME	107-98-2	PA, MA, NJ Right to Know
Ethanol	64-17-5	PA, MA, NJ Right to Know
2-Butanol	78-92-2	PA, MA, NJ Right to Know
Methanol	67-56-1	PA, MA, NJ Right to Know

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>
Methanol	67-56-1

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.

– END OF SDS –