

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

1.1 Product Identifiers

Product Name: NANOMYTE® TC-4001

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: Corrosion resistant coating / pretreatment for various metals

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

Sensitization, skin (Category 1), H317

Eye irritation (Category 2A), H319

Acute toxicity, Inhalation (Category 4), H332

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

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

2.2 GHS Label elements, including precautionary statements

Pictogram(s):



Signal Word: Danger

Hazard Statement(s):

H225 Highly flammable liquid and vapor

H303 May be harmful if swallowed

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

Precautionary Statement(s):

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

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

- P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash skin thoroughly after handling
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.
- 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.
- P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/ attention.
- P337 + P313 IF EYE irritation persists: Get medical advice/ attention.
- P363 Wash contaminated clothing before reuse.
- 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.
- P405 Store locked up
- P501 Dispose of contents/ container to an approved waste disposal plant.

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

Repeated exposure may cause skin dryness or cracking (methyl acetate)

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Components	CAS #	Classification	Concentration
Methyl Acetate	79-20-9	Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336	60 – 66%
Trade Secret (1)	Proprietary	Skin Sens. 1, H317	20 – 24%
Trade Secret (2)	Proprietary	Flam. Liq. 3, H226; Acute Tox. 4, H319; Eye Irrit. 2A, H332; STOT SE 3, H335	9 – 11%

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, foam, dry chemical, or CO₂

5.2 Special Hazards Arising from the Substance or Mixture

Carbon oxides, silicon oxides, phenolics

5.3 Advice for Firefighters

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

5.4 Further Information

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air. 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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to Other Sections

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. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Use explosion-proof equipment. Keep away from heat, sparks, flames and other sources of ignition – no smoking. Take measures to prevent the buildup of electrostatic charge. For precautions see section 2.2.

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. Residual vapors might explode on ignition. Do not apply heat, cut, drill, and grind or weld on or near this container. 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	CAS #	Value	OSHA (OEL)	ACGIH (TLV)	NIOSH (REL)
Methyl Acetate	79-20-9	TWA	200 ppm 610 mg/m ³	200 ppm 606 mg/m ³	200 ppm 610 mg/m ³

(cont.)	Component	CAS #	Value	OSHA (OEL)	ACGIH (TLV)	NIOSH (REL)
	Trade Secret (2)	Proprietary	TWA	100 ppm 850 mg/m ³	10 ppm 85 mg/m ³	10 ppm 85 mg/m ³
	Remarks:	Methyl Acetate: Upper Respiratory Tract irritation; Headache; Eye irritation; Ocular nerve damage Trade Secret (2): Upper Respiratory Tract irritation; Eye irritation; Kidney damage				

Notes: OEL – Occupational 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

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 (of components)

<u>Components:</u>	<u>Methyl Acetate</u>	<u>Trade Secret (1)</u>	<u>Trade Secret (2)</u>
Form:	Clear Liquid	Solid	Liquid
Color:	Light pink to light yellow	No Data Available	Colorless
Odor:	Mildly fruity	No Data Available	No Data Available
pH:	No Data Available	No Data Available	No Data Available
Melting Point / Range:	-98 °C (-144 °F) - lit.	No Data Available	- 82.49 °C (-116.48 °F) at ca. 1,013 hPa (760 mmHg)
Initial Boiling Point / Range:	57 - 58 °C (135 - 136 °F) - lit.	No Data Available	168 °C (334 °F) - lit.
Flashpoint:	-12.99 °C (8.62 °F) - closed cup	No Data Available	45 °C (113 °F) - closed cup
Evaporation Rate:	No Data Available	No Data Available	No Data Available
Flammability (solid, gas):	No Data Available	No Data Available	No Data Available
Upper Explosion Limit:	16% (V)	No Data Available	23% (V)
Lower Explosion Limit:	3% (V)	No Data Available	1.3% (V)
Vapor Pressure (20 °C):	217 hPa (163 mmHg)	No Data Available	10.0 hPa (7.5 mmHg)
Vapor Density:	2.8	No Data Available	7.19
Relative Density:	0.934 g/cm ³ at 25 °C (77 °F)	No Data Available	0.933 g/cm ³ at 20 °C (68 °F)

Components:	Methyl Acetate	Trade Secret (1)	Trade Secret (2)
Water Solubility:	319 g/l at 20 °C (68 °F)	No Data Available	1.49 g/l at 23 °C (73 °F) at 7 hPa (5 mmHg) - soluble
Auto-ignition Temperature:	454 °C (849 °F) at 1,013 hPa (760 mmHg)	No Data Available	222 °C (432 °F) at 960.8 hPa (720.7 mmHg)
Decomposition Temperature:	No Data Available	No Data Available	No Data Available
Viscosity:	No Data Available	No Data Available	No Data Available
Explosive Properties:	No Data Available	No Data Available	No Data Available

9.2 Other Information

None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No Data Available

10.2 Chemical Stability

Stable under recommended storage conditions (see Section 7.2)

10.3 Possibility of Hazardous Reactions

Vapors may form explosive mixture with air.

10.4 Conditions to Avoid

Keep away from heat, sparks and flames

10.5 Incompatible Materials

Strong oxidizing agents, strong acids, strong bases

10.6 Hazardous Decomposition Products

No Data Available (in event of fire, see Section 5)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects (of components)

Acute Toxicity	Methyl Acetate	Trade Secret (1)	Trade Secret (2)
Oral LD50:	6,482 mg/kg (Rat, male) (OECD Test Guideline 401)	No Data Available	> 2,500 mg/kg (Rat) (OECD Test Guideline 423)
Inhalation LC50:	49.2 - 98.4 mg/l (Rabbit) (male and female - 4 h)	No Data Available	No Data Available
Dermal LD50:	5,000 mg/kg (Rabbit)	No Data Available	5,878 mg/kg (Rabbit)
Skin corrosion/irritation	Skin – Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)	No Data Available	Skin – Rabbit Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes – Rabbit Result: Irritating to eyes (OECD Test Guideline 405)	No Data Available	No Data Available
Respiratory or skin sensitization	No Data Available	May cause allergic skin reaction	Buehler Test - Guinea pig Did not cause sensitization on laboratory animals (OECD Test Guideline 406)

Germ cell mutagenicity

<u>Methyl Acetate</u>	<u>Trade Secret (1)</u>	<u>Trade Secret (2)</u>
Ames test - <i>S. typhimurium</i> Result: negative	No Data Available	In Vitro Assay Chinese hamster ovary cells Result: negative
OECD Test Guideline 474 Rat - male and female Result: negative	No Data Available	No Data Available

Carcinogenicity

- 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.
- ACGIH:** No component of this product (present at levels greater than or equal to 0.1%) is identified as a carcinogen or potential carcinogen by ACGIH.
- 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

No Data Available

Teratogenicity

No Data Available

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

Methyl Acetate: May cause drowsiness or dizziness, Central nervous system

Trade Secret (2): May cause respiratory irritation

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

No Data Available

Aspiration hazard

No Data Available

Additional Information

Methyl Acetate

Repeated dose toxicity: Rat - male and female - Inhalation - NOAEL : 1,057 mg/m³ - OECD Test Guideline 412

RTECS: AI9100000

Methyl Acetate is metabolized into formic acid. Humans and other primates metabolize formic acid more slowly than do rodents. Formic acid can build up in the body producing toxic effects possibly leading to death; therefore, data from studies in rodents may have limited relevance for human risk assessment.

Trade Secret (2)

Repeated dose toxicity - Rat - male and female - Gavage - No observed adverse effect level - 10 - 50 mg/kg

Liver - Irregularities - Based on Human Evidence

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

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity (of components with known values)

Methyl Acetate

Toxicity to fish (LC50):	Static Test – <i>Danio rerio</i> (zebra fish) - 250 - 350 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates (EC50):	Static Test – <i>Daphnia magna</i> (Water flea) - 1,026.7 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae (EC50):	Static Test – <i>Desmodesmus subspicatus</i> (<i>Scenedesmus subspicatus</i>) - > 120 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria (EC50):	<i>Pseudomonas putida</i> - 6,000 mg/l - 16 h

Trade Secret (2)

- Toxicity to fish (LC50): Semi-static Test – Danio rerio (zebra fish) – 245 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates (EC50): Flow-through Test – Daphnia magna (Water flea) – 75 mg/l (OECD Test Guideline 202)
Toxicity to algae (EC50): Static Test – Pseudokirchneriella subcapitata – 100 mg/l - 72 h (OECD Test Guideline 201)

12.2 Persistence and Degradability

Methyl Acetate: Aerobic - Exposure time 28 d | Result: 70% - Readily biodegradable (OECD Test Guideline 301D)

Trade Secret (2): Aerobic - Exposure time 28 d | Result: 98% - Readily biodegradable

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 container and unused contents in accordance with federal, state and local requirements.

SECTION 14: TRANSPORT INFORMATION

14.1 Department of Transportation (DOT - US)

UN number: 1866 Class: 3 Packing Group: II
Proper Shipping Name: Resin Solution, flammable

14.2 International Maritime Dangerous Goods (IMDG)

UN number: 1866 Class: 3 Packing Group: II
Proper Shipping Name: Resin Solution, flammable

14.3 International Air Transport Association (IATA)

UN number: 1866 Class: 3 Packing Group: II
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

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

<u>Component Name</u>	<u>CAS #</u>	<u>Hazards</u>
Methyl Acetate	79-20-9	Fire Hazard, Acute Health Hazard
Trade Secret (1)	Proprietary	Acute Health Hazard
Trade Secret (2)	Proprietary	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>
Methyl Acetate	79-20-9	MA, NJ, PA Right to Know
Trade Secret (1)	Proprietary	NJ, PA Right to Know
Trade Secret (2)	Proprietary	MA, NJ, PA Right to Know

CALIFORNIA PROPOSITION 65

This product does not contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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.