

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



1. Identification

1.1. Product identifier

Product Identity Nano-Clear NCI
Alternate Names Nano-Clear NCI, Polyurethane Hybrid.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Industrial Paint.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Nanovere Technologies, LLC.
4023 S. Old US 23,
Brighton, MI 48114

Emergency
CHEMTREC (USA) (800) 424-9300
24 hour Emergency Telephone No.
Customer Service: Nanovere Technologies, LLC. (810) 227-0077

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226	Flammable liquid and vapor.
Acute Tox. 5;H313	May be harmful in contact with skin. (Not adopted by US OSHA)
Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H226 Flammable liquid and vapor.

H313 May be harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

[Prevention]:

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

P235 Keep cool.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / 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 thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P312 Call a POISON CENTER or doctor / physician if you feel unwell.

P313 Get medical advice / attention.

P321 Specific treatment (see information on this label).

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

P403+233 Store in a well ventilated place. Keep container tightly closed.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
t-Butyl acetate CAS Number: 0000540-88-5	50 - 75	Flam. Liq. 2;H225	[1][2]
Polyurea Hybrid CAS Number: Proprietary	20 - 30	Not Classified	
Solvent naphtha (petroleum), light aromatic CAS Number: 0064742-95-6	10 - 25	Asp. Tox. 1;H304	[1]
Polyurethane Hybrid CAS Number: Proprietary	10 - 15	Not Classified	

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

*The full texts of the phrases are shown in Section 16.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Check for and remove contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview	There are no data available on the preparation itself. The preparation has been assessed following the conventional method and classified for toxicological hazards accordingly. See sections 3 and 15 for details See section 2 for further details.
Eyes	Causes serious eye irritation.
Skin	May be harmful in contact with skin. May cause an allergic skin reaction. Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical (monoammonium phosphate, potassium sulphate and potassium chloride), carbon dioxide, high expansion chemical foam and sand (never use water).

5.2. Special hazards arising from the substance or mixture

Exclude sources of ignition and ventilate area Avoid breathing vapor or mist Refer to protective measures listed in sections 7 and 8.

Hazardous decomposition: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

The product slowly reacts with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and in extreme cases bursting of the container

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



Do not allow to enter drains or water courses.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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

5.3. Advice for fire-fighters

May form toxic vapors if heated Fire will produce dense black smoke; Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. Exposure to decomposition products may cause a health hazard.

As in any fire wear self-contained breathing apparatus pressure demand, MSHS / NIOSH (approved or equivalent) and full protective gear.

ERG Guide No. 127

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Exclude sources of ignition and ventilate area Avoid breathing vapor or mist Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Do not allow to enter drains or water courses.

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Exclude sources of ignition and ventilate area Avoid breathing vapor or mist Refer to protective measures listed in sections 7 and 8.

Ventilate area, absorb spill with appropriate absorbent material (sand, earth, vermiculite or diatomaceous earth and place in a close container Cleanup the area immediately with a non-flammable decontaminant comprising (by volume) 5 parts of sodium carbonate and 95 parts water. Take note of any information in section 8 for suitable and unsuitable materials to contain spillage and also refer for additional information on hygiene measures.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin & eyes. Avoid inhalation of dust, particulates, spray or mist arising from the application of the preparation.

Prevent creation of flammable or explosive concentrations of vapors in air (keep the containers tightly closed). Avoid exposure to moisture while opening & re-opening the containers / drums.

Use protected electrical equipment and appropriate techniques to dissipate static electricity during transfer. Keep away from heat sparks and flame.

Eating, drinking and smoking should be strictly prohibited in areas where this material is handled stored and processed.

Always put on appropriate protective equipment while handling.

Comply with the health and safety at work laws.

Vapors are heavier than air and may spread along floors and may form explosive mixtures with air.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Precautions should be taken to minimize exposure to atmospheric humidity or water as carbon dioxide may be formed which, in closed containers can result in pressurization. Care should be taken when re-opening partly used containers.

Store in accordance with local regulations. Keep away from oxidizing agents, strong alkalis and strong acids.

Observe label precautions. Store in a dry, cool and well-ventilated area.

Keep away from heat and direct sunlight (Do not store above 40°C).

Keep away from sources of ignition. Containers that have been opened must be carefully closed air-tight and kept upright to prevent leakage and exposure to atmospheric moisture.

Other precautions:

Compound may react with water, alcohols, glycols, and strong bases.

Violent container rupture may result if this material is placed in a closed container with other reactive materials.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons applying this preparation.

Incompatible materials: Keep away from: Oxidizing agents, strong alkalis, strong acids, amines, alcohols and water. Exothermic reactions occur with amines and alcohols.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000540-88-5	t-Butyl acetate	OSHA	TWA 200 ppm (950 mg/m ³)
		ACGIH	TWA: 200 ppm Revised 2005,
		NIOSH	TWA 200 ppm (950 mg/m ³)
		Supplier	No Established Limit
Polyurea Hybrid	Proprietary	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0064742-95-6	Solvent naphtha (petroleum), light aromatic	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
Polyurethane Hybrid	Proprietary	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

8.2. Exposure controls

Respiratory

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, spray painting, or any other circumstances where air purifying respirators may not provide adequate protection

Eyes

Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area covered to a minimum.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



Hand Protection Description: Barrier Creams can be used prior to exposure.

Wear appropriate protective gloves.

Consult glove manufacturer's data for permeability data.

Skin

Skin: Cover as much of the exposed skin area as possible with appropriate clothing. If skin creams are used, keep the area covered to a minimum.

Hands: Barrier creams can be used prior to exposure. Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by spray operators even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapor below the WEL, suitable respiratory protection must be worn (See Personal Protection).

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

Other Work Practices

Eyewash and deluge shower should be available.

Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance

Clear Liquid

Odor

Solvent Odor.

Odor threshold

Not determined

pH

Not Measured

Melting point / freezing point

Not Measured

Initial boiling point and boiling range

135 - 142°C (275 - 288°F)

Flash Point

35°C (95°F)

Evaporation rate (Ether = 1)

Slower than n-Butyl Acetate

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



Upper/lower flammability or explosive limits

Vapor pressure (Pa)

Vapor Density

Specific Gravity

Solubility in Water

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Decomposition temperature

Viscosity (cSt)

VOC Content

Percent Volatile (by volume)

Lower Explosive Limit: Lower: 1.26%

Upper Explosive Limit: Upper: 6.88% (t-Butyl acetate)

Not Measured

Heavier than air

0.98 to 0.99

Not Measured

Not Measured

Not Measured

Not Measured

Not Measured

1.25 lbs / gal.

65 % By Volume

Flammability

Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back.

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen may be produced.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials, amines, alcohols and water. Exothermic reactions occur with amines and alcohols. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Exposure to direct heat / sunlight (Do not allow exposure to temperatures above 40°C). In case of fire, hazardous decomposition products may be produced.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



10.5. Incompatible materials

Keep away from: Oxidizing agents, strong alkalis, strong acids, amines, alcohols and water. Exothermic reactions occur with amines and alcohols.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. The product slowly reacts with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and in extreme cases bursting of the container.

11. Toxicological information

Acute toxicity

Respiratory exposure may cause acute irritation and/or sensitization of the respiratory system resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to airborne concentrations well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
t-Butyl acetate - (540-88-5)	4,100.00, Rat - Category: 5	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available
Polyurea Hybrid - (Proprietary)	No data available	No data available	No data available	No data available	No data available
Solvent naphtha (petroleum), light aromatic - (64742-95-6)	6,800.00, Rat - Category: NA	3,400.00, Rabbit - Category: 5	No data available	No data available	No data available
Polyurethane Hybrid (Proprietary)	No data available	No data available	No data available	No data available	No data available

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



Carcinogen Data

CAS No.	Ingredient	Source	Value
0000540-88-5	t-Butyl acetate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	Polyurea Hybrid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0064742-95-6	Solvent naphtha (petroleum), light aromatic	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
Proprietary	Polyurethane Hybrid	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	5	May be harmful in contact with skin. (Not adopted by US OSHA)
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



12. Ecological information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
t-Butyl acetate - (540-88-5)	327.00, Pimephales promelas	Not Available	1,300.00 (24 hr), Chlorococcales
Polyurea Hybrid - (Proprietary)	Not Available	Not Available	Not Available
Solvent naphtha (petroleum), light aromatic - (64742-95-6)	9.22, Oncorhynchus mykiss	6.14, Daphnia magna	19.00 (72 hr), Selenastrum capricornutum
Polyurethane Hybrid - (Proprietary)	Not Available	Not Available	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1263	UN1263	UN1263
14.2. UN proper shipping name	UN1263, Paint, 3, III	Paint	Paint
14.3. Transport hazard class(es)	DOT Hazard Class: 3	IMDG: 3 Sub Class: Not Applicable	Air Class: 3
14.4. Packing group	III	III	III
14.5. Environmental hazards			
IMDG	Marine Pollutant: No;		
14.6. Special precautions for user	No further information		

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	B2 D2A
US EPA Tier II Hazards	Fire: Yes Sudden Release of Pressure: No Reactive: No Immediate (Acute): Yes Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Butyl acetate (5,000.00)

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Safety Data Sheet

Nano-Clear NCI

SDS Revision Date: 08/01/2017



Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Butyl acetate

Pennsylvania RTK Substances (>1%):

Butyl acetate

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H410 Very toxic to aquatic life with long lasting effects.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

End of Document