

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION			
Product Name:	Nano-Clear NCI-RC Polyurethane		
Product Use / Restriction:	Industrial Paint		
Chemical Name:	Polyurethane		
Manufacturer Name:	Nanovere Technologies, LLC.		
Address:	4023 S. Old US 23, Brighton, MI 48116		
Telephone number:	(810) 227-0077		
Email Address:	questions@nanovere.com		
SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS			
Ingredients	CAS#	%	Classification
Polyurethane pre-polymers	Proprietary	25 to 30	Skin Irritant / Eye Irritant
Polyisocyanate oligomers	28182-81-2	5 to 10	Skin Irritant / Eye Irritant
t-Butyl acetate	540-88-5	50 to 60	Flammable liquid / Skin Irritant
Light Aromatic Solvent Naphtha	64742-95-6	< 10	Skin Irritant / Respiratory sensitization Eye Irritant
SECTION 3 - HAZARDS IDENTIFICATION			
Hazardous ingredients	<ul style="list-style-type: none"> - Polyisocyanate oligomers, - t-Butyl acetate / Light Aromatic Solvent Naphtha 		
Hazard label			
Risk phrases	<ul style="list-style-type: none"> - Flammable. - May cause irritation / injury by eye contact - May cause sensitization by skin contact. - Repeated exposure may cause skin dryness or dermatitis. - Vapors may cause irritation of respiratory tract - Continuous exposure may cause drowsiness and dizziness. 		
Safety phrases	<ul style="list-style-type: none"> - Avoid skin contact - Wear safety gloves / goggles / apron / respiratory protection 		

SECTION 4 - FIRST AID MEASURES

Description of first aid measures

There are no data available on the preparation itself. The preparation has been assessed following the conventional method and classified for toxicological hazards accordingly. Contains Hexamethylene diisocyanate oligomers. May produce an allergic reaction. See sections 3 and 15 for details.

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice
Eye contact	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties	1C, A II
Flash Point	65°C (149°F)
Lower Explosive Limit	1.00 %
Extinguishing Media	Dry chemical (monoammonium phosphate, potassium sulphate and potassium chloride), carbon dioxide, high expansion chemical foam and sand (never use water)
Protective Equipment	As in any fire wear self-contained breathing apparatus pressure demand, MSHS / NIOSH (approved or equivalent) and full protective gear
Unusual fire hazards	May form toxic isocyanate vapors if heated
Unusual Fire & Explosion Hazards	Fire will produce dense black smoke; Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates. Exposure to decomposition products may cause a health hazard.

SECTION 6 - ACCIDENTAL RELEASE MEASURES	
Personal precautions	<p>Exclude sources of ignition and ventilate area</p> <p>Avoid breathing vapor or mist</p> <p>Refer to protective measures listed in sections 7 and 8.</p>
Spill Cleanup measures	<p>Ventilate area, absorb spill with appropriate absorbent material (sand, earth, vermiculite or diatomaceous earth and place in a close container</p> <p>Cleanup the area immediately with a non-flammable decontaminant comprising (by volume) 5 parts of sodium carbonate and 95 parts water.</p> <p>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</p>
Environmental precautions	Do not allow to enter drains or water courses.
SECTION 7 - HANDLING and STORAGE	
Safe handling	<p>Avoid contact with skin & eyes. Avoid inhalation of dust, particulates, spray or mist arising from the application of the preparation</p> <p>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.</p> <p>Use protected electrical equipment and appropriate techniques to dissipate static electricity during transfer. Keep away from heat sparks and flame.</p> <p>Eating, drinking and smoking should be strictly prohibited in areas where this material is handled stored and processed.</p> <p>Always put on appropriate protective equipment while handling.</p> <p>Comply with the health and safety at work laws</p> <p>Vapors are heavier than air and may spread along floors and may form explosive mixtures with air.</p>
Conditions for safe storage	<p>Store in accordance with local regulations.</p> <p>Keep away from oxidizing agents, strong alkalis and strong acids.</p> <p>Observe label precautions. Store in a dry, cool and well-ventilated area.</p> <p>Keep away from heat and direct sunlight (Do Not store above 40°C)</p> <p>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.</p>
Other precautions	<p>Isocyanate compounds may react violently with water, alcohols, glycols, and strong bases.</p> <p>Violent container rupture may result if this material is placed in a closed container with other reactive materials.</p>

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION – Guidelines		
Engineering Controls	<p>Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.</p> <p>An eye wash facility should be readily available.</p> <p>Facilities storing or utilizing this material should be equipped with an eye wash facility and a safety shower.</p>	
Exposure limit		
Ingredients name	ACGIH	OSHA
Light Aromatic Solvent Naphtha	100 ppm	100 ppm
t-Butyl acetate	200 ppm	200 ppm
Eye/Face Protection	<p>Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166. Contact lenses should not be worn.</p>	
Skin Protection Description	<p>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.</p>	
Hand Protection Description	<p>Barrier Creams can be used prior to exposure.</p> <p>Wear appropriate protective gloves.</p> <p>Consult glove manufacturer's data for permeability data.</p>	
Respiratory Protection	<p>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.</p>	
Other Protective Controls	<p>Eyewash and deluge shower should be available.</p>	
Hygiene measures	<p>Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.</p> <p>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.</p>	

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Physical State Appearance:	Clear liquid
Odor:	solvent odor
Boiling Point:	135 - 142°C (275 - 288°F)
Specific Gravity @ 25°C (77°F)	0.98 to 0.99
Vapor Density:	Heavier than air
Percent Volatile:	65% By Volume
Evaporation Rate:	Slower than n-Butyl Acetate
Evaporation Point:	Slower than n-Butyl Acetate
Molecular Formula:	Mixture
Molecular Weight:	Varies
VOC lbs/gal (as supplied):	1.25 lbs. / gal.
Flammability:	Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back.
Flash Point (closed cup):	65°C (149°F)
Upper/ lower flammability or explosive limits	Greatest known range: Lower: 1.26% Upper: 6.88% (t-Butyl acetate)

SECTION 10 - STABILITY & REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients
Chemical stability	Stable under recommended storage and handling conditions
Possibility of hazardous reactions	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
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
Incompatible materials	Keep away from: Oxidizing agents, strong alkalis, strong acids, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 – TOXICOLOGICAL INFORMATION

There are no available data on the preparation itself.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limits may results in adverse health effects (such as irritation of mucous membrane, respiratory system and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness and drowsiness.

If splashed in the eyes, the liquid may cause irritation and reversible damage

On repeated or prolonged contact with preparation may cause skin irritation, sensitization or even dermatitis.

Contains hexamethylene diisocyanate oligomers and solvents – may cause an allergic reaction

Sensitization	Not available
Mutagenicity	Not available
Carcinogenicity	Not available
Teratogenicity	Not available

SECTION 12 – ECOLOGICAL INFORMATION

There are no data available on the preparation itself on eco-toxicity

Do not allow to enter drains or water courses.

Always contain the spill or waste using appropriate methods to avoid contaminating the environment

SECTION 13 - DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance.

Do not allow to enter drains or water courses.

Residues in empty containers should be neutralized with a decontaminant (see section 6)

Dispose according to all federal, state and local applicable legislations

Waste disposal (Product)	Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
	The product is not regarded as hazardous waste.
	When disposed of as waste the product is classified as waste isocyanates
Waste disposal (packaging)	Triple-rinse drums prior to offering for recycle.

SECTION 14 - TRANSPORT INFORMATION

Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

DOT Shipping Name	Paint Related Material
DOT UN Number	UN1263
DOT Hazard Class	3
DOT Packaging Group	III
DOT Label	



IMDG Class	Class 3.2 Intermediate Flash-point group
Storage temperature	Store below 30°C (86°F) Refer section 7 – Handling & Storage

Section 15 – Regulatory Information

Please refer to other relevant national measures

SECTION 16 - ADDITIONAL INFORMATION

General Use:	Clear Coat (Automotive & Industrial Applications)
HMIS Health Hazard:	2
HMIS Fire Hazard:	3
HMIS Reactivity:	1
HMIS PPE Code:	H