


# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT NAME: PRO-001 Solvent</b>		
GENERAL USE: overcoat PRODUCT DESCRIPTION: Clear viscous liquid with sweet ester odor		
MANUFACTURER'S NAME NCC Nano LLC dba Novacentrix	DATE PREPARED: May 16, 2013 SUPERSEDES: New	Page 1 of 5
ADDRESS (NUMBER, STREET, P.O. BOX) 400 Parker Drive, Suite 1110 (CITY, STATE AND ZIP CODE) Austin, TX 78728	COUNTRY USA	TELEPHONE NUMBER FOR INFORMATION (512) 491-9500 EMERGENCY TELEPHONE NUMBER ChemTel Inc. 1- (800) 255-3924 Intl. + 01 (813) 248-0585

## SECTION 2 - HAZARDS IDENTIFICATION

<b>EMERGENCY OVERVIEW</b>
Physical Hazards: Flammable liquid (GHS Classification: Category 2) and vapor
Acute Health Effects (Short-term): Serious eye irritant Slight to moderate skin irritant Suspect skin sensitizer Suspect skin absorption hazard Respiratory tract irritant Ingestion hazard Target organ effect (blood, kidney, liver, and central nervous system)
Chronic Health Effects (Long-term): May affect kidney, liver, and central nervous system

<b>POTENTIAL HEALTH EFFECTS</b>						
<b>INHALATION</b> May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause coughing, mucous production, shortness of breath, headache, drowsiness, dizziness, and nausea. Exposure to high concentrations may have a narcotic effect and may cause kidney and liver damage.						
<b>SKIN</b> Brief exposure may cause slight irritation. Repeated or prolonged exposure may cause an allergic skin reaction (sensitization) which may appear as redness, rashes, and blisters. Symptoms of irritation may be delayed 24 to 48 hours. Susceptible individuals may experience an immediate allergic skin reaction (sensitization). May be harmful if absorbed through the skin.						
<b>EYES</b> May cause serious irritation with possible symptoms such as burning sensation, tearing, redness, or swelling.						
<b>INGESTION</b> This product may be harmful if ingested. May cause irritation to the gastrointestinal tract, nausea, weakness, and vomiting.						
CARCINOGENICITY	NTP?	No	IARC MONOGRAPHS?	No	OSHA REGULATED?	No

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	EC #	% (by weight)	OSHA PEL		ACGIH TWA		RQ lbs
				ppm	mg/m3	ppm	mg/m3	
Ethyl acetate	147-78-6	205-500-4	70 - 95	400	1400	400	1440	5000

The remaining components of this product are non-hazardous or are in small enough quantities as to not meet regulatory thresholds for disclosure. These components contain no substances or impurities which would influence the classification of this product.

MATERIAL SAFETY DATA SHEET	
PRODUCT NAME: PRO-001 Solvent May 16, 2013	Page 2 of 5
<b>SECTION 4 - FIRST AID MEASURES</b>	
INHALATION: Remove affected person to fresh air. Provide oxygen if breathing is difficult. If affected person is not breathing, administer CPR and seek emergency medical attention.	
SKIN: Remove contaminated clothing. Wash affected area with soap and water. Launder contaminated clothing before reuse. If irritation persists, seek medical attention.	
EYES: Check for and remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open. If irritation persists, seek medical attention.	
INGESTION: Give two glasses of water for dilution. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.	
<b>SECTION 5 - FIRE FIGHTING MEASURES</b>	
FLASH POINT (METHOD USED) < 21°C (< 70°F)	FLAMMABLE LIMITS LEL: Not specified UEL: Not specified AUTOIGNITION TEMPERATURE: Not determined NFPA CLASS: <b>IA</b>
GENERAL HAZARDS: Product is flammable and will support combustion. Products of combustion include carbon monoxide, carbon dioxide, and hydrocarbons.	
EXTINGUISHING MEDIA Carbon dioxide, water fog, dry chemical, alcohol-resistant foam.	
FIRE FIGHTING PROCEDURES Self - contained respiratory equipment. Closed containers may be ruptured by heat due to temperature increase and pressure buildup within the containers. Cool containers with water spray / fog to prevent further heat generation, pressure buildup, and possible explosion when exposed to extreme heat.	
UNUSUAL FIRE AND EXPLOSION HAZARDS Closed containers may rupture or explode due to generation of heat or pressure when exposed to heat, flames, or sparks. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flashback. Vapors may form explosive mixtures with air. Runoff to sewer may create fire or explosion hazard.	
HAZARDOUS COMBUSTION PRODUCTS Smoke fumes, carbon monoxide, carbon dioxide, and hydrocarbons.	
<b>SECTION 6 - ACCIDENTAL RELEASE MEASURES</b>	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Evacuate personnel to safe areas. Wear protective equipment during clean-up. Extinguish all ignition sources and use spark-proof tools and explosion-proof equipment. Properly ventilate area. Avoid breathing vapors, mist, or gas. Vapors can accumulate in low or confined areas. Beware of vapors accumulating to form explosive concentrations. Confine material and absorb with an inert absorbent such as vermiculite or clay. Place material into approved containers for disposal. Wash spill area with a strong detergent and water. Rinse with water but minimize water use during clean-up. For large spills, notify the National Response Center (800) 424 - 8802; refer to CERCLA 40 CFR 302 for detailed instructions; refer to SARA Title III, Section 313, 40 CFR 372 for reporting requirements. Do not discharge into lakes, ponds, streams, or public waters.	
<b>SECTION 7 - HANDLING AND STORAGE</b>	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container tightly closed when not in use. Store product in a dry, cool, and properly ventilated area. Avoid exposure to heat, oxidizing agents, open flame, and sparks. Take measures to prevent the build up of electrostatic charge. Avoid contact of product with eyes, skin, and clothes. Avoid inhalation of vapor or mist. Keep this product out of the reach of children.	
<b>SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION</b>	
<b>ENGINEERING CONTROLS</b> The use of local exhaust ventilation is recommended. If gas, vapor, or mist are generated, process enclosures and other engineering controls must be used to limit user exposure to airborne contaminants below any recommended or statutory limits. Use explosion-proof ventilation equipment.	
<b>PERSONAL PROTECTION:</b>	
RESPIRATORY PROTECTION: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose 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. Respiratory protection must be provided in accordance with OSHA regulations (29 CFR 1910.134) or European Standard EN 149, as applicable.	
PROTECTIVE GLOVES: 4H (PE / EVAL / PE), PE / PA / PE (Barrier), or butyl rubber gloves with cuffs.	
EYE PROTECTION: Chemical splash goggles. Refer to 29 CFR 1910.133, ANSI Z87.1, or European Standard EN166.	

**MATERIAL SAFETY DATA SHEET**

PRODUCT NAME: PRO-001 Solvent  
 May 16, 2013 Page 3 of 5

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Impervious clothing, flame retardant antistatic protective clothing, or other equipment should be worn to minimize skin contact. The type of protective equipment must be selected according to the concentration and amount of the substance used in the specific workplace.

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Safety showers and safety eyewash nearby.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOR Clear viscous liquid with sweet ester odor	VAPOR DENSITY (AIR = 1) > 1
SPECIFIC GRAVITY (WATER = 1) 0.9 - 1.5 (at 25°C)	EVAPORATION RATE (Water = 1) ≤ 1
SOLUBILITY IN WATER Dispersible	% VOLATILE (BY WEIGHT) Not specified
pH Not specified	VAPOR PRESSURE Not specified
BOILING POINT Not specified	FREEZING POINT Not specified
VISCOSITY 100 - 200 cP (at 25°C)	VOLATILE ORGANIC COMPOUNDS (VOC's) Not specified

**SECTION 10 - STABILITY AND REACTIVITY**

STABILITY UNSTABLE:  STABLE: X	CONDITIONS TO AVOID: High temperatures, oxidizing conditions, direct sunlight, open flame, and sparks
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INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids, and strong alkalis

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, smoke fumes, carbon monoxide, carbon dioxide, and hydrocarbons may be produced.

HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: X	
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**SECTION 11 - TOXICOLOGICAL INFORMATION**

Hazardous Ingredients	CAS #	EC #	LD50 of Ingredient Species and Route	LC50 of Ingredient Species
Ethyl acetate	147-78-6	205-500-4	5620 mg / kg Oral - rat > 180000 mg / kg Dermal - rabbit	45000 mg / m3 Inhalation - mouse (2h)

**SECTION 12 - ECOLOGICAL INFORMATION**

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not flush to sanitary sewer or waterway. Refer to 40 CFR 260 - 299 for complete waste disposal regulations. Consult your local, state, or federal agency before disposing of any chemicals. According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used.

**SECTION 14 - TRANSPORT INFORMATION**

PROPER SHIPPING NAME: PRO-001 Solvent	
DOT HAZARD CLASS / Pack Group: 3 / II REFERENCE: 49 CFR 173.121, .202, .242 UN / NA IDENTIFICATION NUMBER: UN 1173 LABEL: FLAMMABLE LIQUID HAZARD SYMBOLS: F	IATA HAZARD CLASS / Pack Group: 3 / II IMDG HAZARD CLASS: 3 / II RID/ADR Dangerous Goods Code: 3 UN TDG Class / Pack Group: 3 / II Hazard Identification Number (HIN): 33

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

**MATERIAL SAFETY DATA SHEET**

PRODUCT NAME: PRO-001 Solvent  
May 16, 2013

Page 4 of 5

**SECTION 15 - REGULATORY INFORMATION**

**TSCA (Toxic Substance Control Act)**

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

**SARA TITLE III (Superfund Amendments and Reauthorization Act)**

302

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

311/312

Fire hazard, Acute health hazard, Chronic health hazard.

313

This product 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.

**CERCLA (Comprehensive Response Compensation and Liability Act)**

This product, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 40 CFR 302.

**California Proposition 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

This product does not contain any reportable chemicals known to the state of California to cause cancer or reproductive toxicity.

**CPR (Canadian Controlled Products Regulations)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: D2B.

**IDL (Canadian Ingredient Disclosure List)**

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 3.

**DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)**



Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 3 unless otherwise indicated.

**EINECS (European Inventory of Existing Commercial Chemical Substances)**

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

WGK Water Quality Index: 1

VbK Index: A I

Risk Phrases	SYMBOL(S) REQUIRED FOR LABEL	Safety Phrases
R11 Highly flammable		S2 Keep out of the reach of children
R36/37/38 Irritating to eyes, respiratory system, and skin		S15 Keep away from heat
R42/43 May cause sensitization by inhalation and skin contact	Irritant      Flammable	S16 Keep away from sources of ignition- No smoking
R66 Repeated exposure may cause skin dryness or cracking	 	S20/21 When using do not eat, drink, or smoke
R67 Vapors may cause drowsiness and dizziness		S24/25 Avoid contact with eyes and skin
		S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
		S33 Take precautionary measures against static discharges
		S36/37/39 Wear protective clothing, gloves, eye / face protection
		S38 In case of insufficient ventilation wear suitable respiratory equipment

**MATERIAL SAFETY DATA SHEET**

PRODUCT NAME: PRO-001 Solvent  
May 16, 2013

**SECTION 16 - OTHER INFORMATION**

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience.

**HMIS HAZARD RATINGS**

HEALTH	2	* = Chronic Health Hazard	2 = MODERATE
CHRONIC HEALTH	*	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	3	1 = SLIGHT	4 = EXTREME
PHYSICAL HAZARD	1		

PERSONAL PROTECTIVE EQUIPMENT

C Safety Glasses, Gloves, Protective Clothing

**REVISION SUMMARY:**

This MSDS has been revised in the following sections:  
No changes noted

**MSDS Prepared by:**

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.