SAFETY DATA SHEET

NORMAC ADHESIVE PRODUCTS INC.

XL-5001

Section 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Products Name: Normac XL-5001
Chemical Family: Synthetic Resins and Solvents
Chemical Name: Polymeric resin with phenol in solvent
Applications: Rubber to Metal Solvent Cement, Bonding Agent

Supplier's Name:
Normac Adhesive Products Inc.
1350 Heine Court
Burlington, Ontario, Canada, L7L 6M4
Tel: (905) 332-6455 Fax: (905) 332-6880

Prepared by: Regulatory Affairs Group of Normac Adhesive Products Inc.
Preparation Date of SDS: February 19, 2019
24 Hour Emergency Telephone Number (Canutec): (613) 996-6666

Section 2 – HAZARD(S) IDENTIFICATION

Target Organs
Liver, Kidney, Blood, Eyes, Ears, Heart, Bone marrow, Central nervous system

WHMIS Classification

B2 Flammable liquid	Flammable liquid
D2A Very Toxic Material Causing Other Toxic Effects	Carcinogen
D2B Toxic Material Causing Other Toxic Effects	Moderate skin irritant
	Specific target organ toxicity - single exposure
	Severe respiratory irritant
	Moderate eye irritant

GHS Classification
Flammable liquids (Category 2)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3), Central nervous system
Acute toxicity, Oral (Category 5)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 3)
Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3), Respiratory system
Acute aquatic toxicity (Category 2)
Carcinogenicity (Category 2)

Signal word: **DANGER**

Hazard Statements
H225 Highly flammable liquid and vapour.

H303 May be harmful if swallowed.
H312 + H332 Harmful in contact with skin or if inhaled
H315 + H320 Causes skin and eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H401 Toxic to aquatic life.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280 Wear protective gloves/ protective clothing.
P281 Use personal protective equipment as required.

GHS Labeling
Pictograms

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 3
Physical hazards: 0

Potential Health Effects
Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion May be harmful if swallowed.

Section 3- COMPOSITION / INFORMATION ON INGREDIENTS

	Cas No.	Percentage* (W/W)	Exposure Limits ACGIH	LD50 / LC50
Acetone	67-64-1	20 - 40	750 ppm TWA	5.8 g/kg (rat) 50000 mg/m3 (rat)
Methyl Isobutyl Ketone	108-10-1	20 - 40	50 ppm TWA	2080 mg/kg (rat) 23300 mg/m3(mouse)
PCBTF (parachlorobenzotrifluoride)	98-56-6	5 - 15	NA	NA
TBAC (tert-butyl acetate)	540-88-5	5 - 15	NA	NA

Carbon Black	1333-86-4	.005 - .01	3.5 mg/ m3 TWA >10 gm/kg (rat)

**Exact percentages are withheld as a trade secret however the health and environmental hazard effects stated in this SDS describe the effects of the highest concentration of each ingredient; in compliance with (ST/SG/AC.10/30/Rev.6) and (29 CFR 1910.1200).*

Section 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with gently flowing water for at least 15 minutes or until the chemical is removed. Hold eyelids open during flushing. Take care not to rinse the contaminated water into the unaffected eye or face. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing, including shoes, after flushing with water has begun. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention.

Inhalation: If symptoms are experienced, remove source of contamination and, move victim to fresh air. If symptoms persist, get medical attention. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. In situations where administering oxygen is appropriate, first aid administrator must be trained in the safe use and handling of oxygen. It is preferable to administer oxygen under a doctor's supervision or advice. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately. Obtain medical attention IMMEDIATELY.

Ingestion: Seek immediate medical attention. Do NOT Induce vomiting. Do not attempt to give anything by mouth to an unconscious or convulsing person. IMMEDIATELY contact local Poison Control Centre. If spontaneous vomiting occurs, have victim lean forward with head down to avoid aspirating the liquid into the lungs. Administer artificial respiration if breathing has stopped. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately.

Note to Physician: Treatment based on sound judgment of physician and individual reactions of patient.

Section 5 – FIRE FIGHTING MEASURES

Flash Point: -20^{o}C
Flash Point Method: (Closed cup)
Auto Ignition Temp: Not determined
Flammable Limits in air (%): LEL – 1%, UEL – 18%
Extinguishing Media: Use DRY Chemicals. CO2. alcohol foam or water fog. This material may produce a floating fire hazard in extreme fire conditions.
Special Exposure Hazards: Flammable Liquid. Isolate and restrict area access. Stop leak only if safe to do so. Move containers from fire area if you can do so without risk. Fight fire from a safe distance and from a protected location. Use fine water spray or fog to control fire spread and cool adjacent structures or containers. This material may produce a floating fire hazard in extreme fire conditions. Vapours are heavier than air and may accumulate in low areas. Vapours may travel

along the ground to be ignited at distant locations. Do no allow runoff to enter waterways or sewer.

Hazardous Decomposition/ Combustion Materials: A Complex mixture of airborne solids, liquids, gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

Special Protective Equipment: Wear protective clothing and self-contained breathing apparatus. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA is optional.

NFPA RATINGS: HEALTH 2; FLAMMABILITY 3; INSTABILITY: 0
HMIS RATINGS: HEALTH 2; FLAMMABILITY 3; INSTABILITY: 0

Section 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautionary Measures: Wear appropriate protective equipment.
Environmental Precautionary Measures: Prevent entry into sewers or streams, dike if needed. Prevent contamination of soil. Consult Local authorities.

Procedure for Clean Up: Immediately evacuate the area. Isolate hazard area and restrict access. Prevent contamination of waterways. Absorb with an inert dry material and place in an appropriate waste disposal container. Large spills, dike and pump into suitable containers. Clean up all residual with absorbent material. Place in appropriate container. Notify applicable government authority if release is reportable or could adversely affect the environment. Ventilate the area thoroughly.

Section 7 – HANDLING AND STORAGE

Handling: Flammable. For Industrial Use Only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. DO NOT handle or store near an open flame, heat, or other sources of ignition. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. DO NOT pressurize, cut, heat or weld containers. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personal protective equipment. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (>= 10 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Extinguish any naked flames.

Storage: Store in a cool, dry, well ventilated area, away from heat and ignition sources. Keep containers tightly closed. Store out of direct sunlight and on an impermeable floor.

Section 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as required to maintain exposure to within

applicable limits. Use explosion proof equipment. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense vapours may collect.

Respiratory Protection: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves: Impervious gloves. Butyl rubber gloves. Silver Shield(R). 4H(R).

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protective Data: Ensure that eyewash stations and safety showers are proximal to the work station location.

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Colour:	Tinted Grey
Odour:	Sweet, Pungent
Specific Gravity:	Not Determined
Boiling Point:	56^{o}C
Melting/Freezing Point:	-95 - 90 ^{o}C
% Volatility:	>85%
Vapour Pressure:	Not Determined
Vapour Density:	Not Available
Viscosity:	Not Available
Odour threshold:	Not available
Solubility:	Partially soluble in water.
Evaporation Rate:	Not Available

Section 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Hazardous Polymerization: Will not occur under normal conditions.

Conditions to Avoid: High temperatures, sparks, open flames and all sources of ignition.

Materials to Avoid: Chromic anhydride, chromyl alcohol, hexachloromelanine, hydrogen peroxide, thiogylcol, permonosulfuric acid, potassium tertbutoxide, strong oxidizing agents, acids, bases and water.

Hazardous decomposition Products: Oxides of carbon, chlorine, hydrogen cyanide, phosgene and asphyxiants.

Section 11 – TOXICOLOGICAL INFORMATION

Principle Routes of Exposure:

Ingestion: Harmful if swallowed. May cause irritation of the mouth, throat and esophagus. Product has laxative properties and may result in abdominal cramps and diarrhea. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause mid to severe pulmonary injury and possibly death. May cause lung damage if swallowed. Aspiration into the lungs during ingestion or vomiting may lead to chemical pheumonitis.

Skin Contact: Repeated or prolonged contact may cause defatting and drying of the skin which may result in skin irritation and dermatitis.

Inhalation: High concentrations may cause drowsiness and irritation of the eyes or respiratory tract. Excessive inhalation causes headache, dizziness, nausea and incoordination. Continued inhalation may result in unconsciousness and /or death.

Eye Contact: High vapour concentration will cause severe eye irritation.

Animal Test of Product:	**Acetone**	**Methyl Isobutyl Ketone**
Oral LD50:	5800 – 9700 mg./kg (Rat)	2808 mg/kg (Rat)
Dermal LD50:	Not Available.	Not Available.
Inhalation LC50:	16,000 ppm (Rat)	23300 mg/m^3

Carcinogenicity: May be a possible human carcinogen.

Reproductive Toxicity/ A study of 891 women showed an increased risk of miscarriage.
Terratogenicity/Embryotoxicity/ May cause teratogenic/embryotoxic effects based on studies on lab animals but only at high generally toxic doses.

Mutagencity: Not mutagenic.

Synergistic Products: Acetone has increase the liver toxicity of chemicals, such as carbon tetrachloride, chloroform and trichloroethylene. Acetone has also increased the lung toxicity of styrene and the toxicity of acrylonitrile and 2.5 hexanedione in lab animals. Acetone also appears to inhibit the metabolism and elimination of ethyl alcohol, therby potentiating its toxicity. Acetone can increase the toxicity of 1.2-dichlorobenzene, depending upon to concentration of acetone.

Section 12 - ECOLOGICAL INFORMATION

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Other Information: Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds or rivers

Section 13 – DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with local, state/provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

Section 14 – TRANSPORT INFORMATION

Proper Shipping Name: Adhesive (Containing Flammable Liquid)

TDG (IATA and IMO): Cl. 3 UN 1133 PG. II

Hazard Label / Placards: FLAMMABLE

Section 15 – REGULATORY INFORMATION

U.S. TSCA Inventory Status: All compounds of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All compounds of this product are either on the Domestic Substances List (DSL); the Non- Domestic Substances List (NDSL) or exempt.

Note: Not available.

US Regulatory Rules	**CECLA/SARA Section 302:**	**SARA (311, 312) Hazard Class:**	**CERCLA/SARA Section 313**:
XL-5001 components	Not Listed	Listed	Not Listed
California Proposition 65:	Not Listed.		
MA Right to Know List:	Listed.		
New Jersey Right-to-know List:	Listed.		
Pennsylvania Right to Know List:	Listed.		

WHMIS Hazardous Class: B2 FLAMMABLE LIQUIDS
D2A VERY TOXIC MATERIALS
D2B TOXIC MATERIALS

NFPA RATINGS: HEALTH 2; FLAMMABILITY 3; INSTABILITY: 0
HMIS RATINGS: HEALTH 2; FLAMMABILITY 3; INSTABILITY: 0

Section 16 – OTHER INFORMATION

All employees or contractors etc. who use this product must have access to this Safety Data Sheet.

This information is furnished without warranty, representation, inducement or licence of any kind, except that it is accurate to the best of Normac Adhesive Products Inc. knowledge or is obtained from sources believed by Normac Adhesive Products Inc. to be accurate. Normac Adhesive Products Inc. makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use or reliance on same. Customers are encouraged to conduct their own tests.

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*****END OF SDS***** SDS Code: XL-5001 - 4