

MATERIAL SAFETY DATA SHEET

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Date Prepared: 12/3/2009

Revision Date:

**HMIS RATINGS:**

Health: 2 Flammability:3 Reactivity:0 Personal Protection: H

**Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: Industrial Solvent, Liquid Product Number: 1190

Emergency Telephone Number: (800)535-5053

Chemical Family: Solvent

Company Identification: ALGONQUIN PRODUCTS, CO.

1165 ALLGOOD RD SUITE 13

MARIETTA, GA 30062

Phone 1-866-578-4240 Fax 1-866-578-4241

**Section 2: COMPOSITION, INFORMATION ON INGREDIENTS**

<u>CAS</u> <u>NUMBER</u>	<u>CHEMICAL</u> <u>NAME</u>	<u>BY</u> <u>WGHT.</u>
142-82-5	n-HEPTANE	30-40%
67-63-0	ISOPROPANOL	5-10%
67-56-1	METHANOL	5-10%
<b>108-88-3</b>	<b>TOLUENE</b>	<b>1.5-5%</b>

\* See Section 15 for more information

**Section 3: HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW

**Acute/Potential Health Effects:**

**Routes of exposure**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin contact**

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage

Swallowing this material may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

**Inhalation**

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), Upper respiratory tract, Kidney, Liver, pancreas, Central nervous system,

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### **Section 3: HAZARDS IDENTIFICATION (cont'd)**

Heart, auditory system, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias., Individuals with preexisting heart disorders maybe more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

#### **Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), runny nose, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, loss of appetite, muscle cramps, Weakness, Lowered blood pressure, pain in the abdomen and lower back, mild, temporary changes in the liver, effects on heart rate, respiratory depression (slowing of the breathing rate), Blurred vision, Shortness of breath, Lack of coordination, confusion, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), narcosis (dazed or sluggish feeling), lung edema (fluid buildup in the lung tissue), kidney damage, visual impairment (including blindness), coma

#### **Target Organs**

Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans., Breathing isopropanol vapors has caused damage to the lining of the middle ear in experimental animals. The relevance of this finding to humans is uncertain., Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage., Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene., Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible kidney effects, liver abnormalities, respiratory tract damage (nose, throat, and airways), effects on hearing, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, kidney damage, visual impairment

#### **Carcinogenicity**

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### **Section 3: HAZARDS IDENTIFICATION (don't'd)**

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

#### **Reproductive hazard**

Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans., Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

### **Section 4: FIRST AID MEASURES**

#### **Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

#### **Skin**

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

#### **Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

#### **Inhalation**

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

#### **Notes to physician**

**Hazards:** Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting. Administration of high doses of

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**Section 4: FIRST AID MEASURES (cont'd)**

isopropanol in combination with known hepatotoxic chemicals resulted in enhanced liver toxicity in experimental animals.

**Section 4: FIRST AID MEASURES (cont'd)**

toxicity in experimental animals.

**Treatment:** No information available

**Section 5: FIRE FIGHTING MEASURES**

**Suitable extinguishing media**

Water spray, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**Hazardous combustion products**

carbon dioxide and carbon monoxide, Hydrocarbons

**Precautions for fire-fighting**

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

**Section 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

**Environmental precautions**

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

**Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations

**Section 7: HANDLING AND STORAGE**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions

given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before

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### **Section 7: HANDLING AND STORAGE (cont'd)**

transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Store in a cool, dry, ventilated area, away from incompatible substances.

### **Section 8: EXPOSURE CONTROLS and PERSONAL PROTECTION**

#### **General advice**

These recommendations provide general guidance for handling this product.

Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

#### **Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### **Eye protection**

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

#### **Skin and body protection**

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Discard gloves that show tears, pinholes, or signs of wear.

#### **Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

### **Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Physical state** liquid

**Color** Water-white

**Odor** No data

**Boiling point/boiling range** No data

**pH** No data

**Flash point** (>=) 15.80 °F / -9.00 °C, Tag closed cup

**Evaporation rate** No data

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**Section 9: PHYSICAL AND CHEMICAL PROPERTIES (cont'd)**

**Explosion limits** No data

**Vapor pressure** No data

**Vapor density** No data

**Density** 0.700 g/cm<sup>3</sup> @ 68 °F / 20 °C

5.830 lb/gal @ 68 °F / 20 °C

**Solubility** No data

**Autoignition temperature** No data

**Section 10: REACTIVITY**

**Stability**

Stable.

**Conditions to avoid**

Heat, flames and sparks.

**Incompatible products**

Acids, Aldehydes, alkalis, aluminum, Amines, calcium hypochlorite, Ethylene oxide, halogenated hydrocarbons, halogens, hypochlorites, isocyanates, Lead, Peroxides, sodium, strong bases, Strong oxidizing agents, Zinc, Do not use with aluminum equipment at temperatures above 120 degrees F.

**Hazardous decomposition products**

carbon dioxide and carbon monoxide, formaldehyde, Hydrocarbons

**Hazardous reactions**

Product will not undergo hazardous polymerization.

**Thermal decomposition**

No data

**Section 11: TOXICOLOGICAL INFORMATION**

**Acute oral toxicity**

n-HEPTANE LD 50 Rat: > 15,000 mg/kg

ISOPROPANOL LD 50 Rat: 5,045 mg/kg

METHANOL LD L0 Human: 300 mg/kg

TOLUENE LD 50 Rat: 2,600 - 7,500 mg/kg

**Acute inhalation toxicity**

n-HEPTANE LC 50 Rat: 103 g/m<sup>3</sup> , 4 h

ISOPROPANOL LC 50 Rat: 16000 ppm, 4 h

METHANOL LC 50 Rat: 64000 ppm, 4 h

TOLUENE LC 50 Rat: 8000 ppm, 4 h

**Acute dermal toxicity**

n-HEPTANE LD 50 Rabbit: > 2,001 mg/kg

ISOPROPANOL LD 50 Rabbit: 5,030 - 7,900 mg/kg

METHANOL LD 50 Rabbit: 12,800 mg/kg

TOLUENE LD 50 Rabbit: 12,124 mg/kg

**Section 12: ECOLOGICAL INFORMATION**

No data.

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**Section 13: DISPOSAL CONSIDERATIONS**

Dispose of in accordance with all applicable local, state and federal regulations.

**Section 14: TRANSPORTATION INFORMATION**

**IMDG:**

UN1993, FLAMMABLE LIQUID, N.O.S. (HEPTANE, METHANOL) 3, II

**IATA\_P:**

UN1993, Flammable liquid, n.o.s. (HEPTANE, METHANOL) 3, II

**IATA\_C:**

UN1993, Flammable liquid, n.o.s. (HEPTANE, METHANOL) 3, II

**CFR\_ROAD:**

UN1993, Flammable liquids, n.o.s. (HEPTANE, METHANOL) 3, II

**CFR\_RAIL:**

UN1993, Flammable liquids, n.o.s. (HEPTANE, METHANOL) 3, II

**CFR\_INWTR:**

UN1993, Flammable liquids, n.o.s. (HEPTANE, METHANOL) 3, II

**IMDG\_ROAD:**

UN1993, FLAMMABLE LIQUID, N.O.S. (HEPTANE, METHANOL) 3, II

**IMDG\_RAIL:**

UN1993, FLAMMABLE LIQUID, N.O.S. (HEPTANE, METHANOL) 3, II

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**Section 15: REGULATORY INFORMATION**

**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer.

BENZENE

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

TOLUENE

BENZENE

**SARA Hazard Classification** Fire Hazard

Acute Health Hazard

**SARA 313 Component(s)**

METHANOL 67-56-1 5.00%

TOLUENE 108-88-3 2.70%

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**Reportable quantity - Product**

US. EPA CERCLA Hazardous Substances (40 CFR 302) 36975 lbs

**Reportable quantity - Components**

n-HEPTANE 142-82-5 none

ISOPROPANOL 67-63-0 none

METHANOL 67-56-1 5000 lbs

TOLUENE 108-88-3 1000 lbs

U.S. Federal Regulations:

TSCA (Toxic Substances Control Act): The intentional ingredients of product are listed.

**Section 16: OTHER INFORMATION**

This information was compiled from current manufacturer's MSDS's of the component parts of the product. Disclaimer: The Manufacturer believes that the information contained in the Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all inclusive nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements.