



## SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** **Gen 49D with CI**  
**Product use:** Diesel Fuel Lubricant

**Manufacturer:** WYS Manufacturing Ltd.  
Bay 7 & 8, 4216 – 54th Ave. SE  
Calgary, Alberta T2C 2E3  
Phone 1-403-252-2239  
Canada

**Supplier:** Maryn International Ltd.  
Bay 5 & 6, 4216 – 54th Ave. SE  
Calgary, Alberta T2C 2E3  
Phone 1-403-252-2239  
Canada

**Emergency Phone Number:** CANUTEC – 24 hr Emergency No. 1-613-996-6666  
Business Hour Number 1-403-252-2239  
(Monday through Friday 8:00am to 4:30pm MST)

**MSDS Prepared By** Z. Ansarizadeh  
**Date Prepared** January 29, 2008

## SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients	Concentration %	C.A.S. #	LD <sub>50</sub> (Species/Route)	LC <sub>50</sub> (Species/Route)
Solvent Naphtha (petroleum), Heavy Aromatic	30-60	64742-94-5	>2 mL/kg (Rabbit/Dermal)	590 mg/m <sup>3</sup> /4H (Rat/Inhalation)(Saturated vapour no mortalities)
2-Ethylhexyl Nitrate	15-40	27247-96-7	>9640 mg/kg (Rats/Oral)	Not Available
Polymeric Succinimide	5-10	Proprietary	660 mg/kg (Rabbit/Dermal)	3990mg/kg (Rat/Oral)
Xylene, Mixture of Isomers	1-5	1330-20-7	4300 mg/kg (Rat/Oral), >1700mg/kg unverified (Rabbit/Dermal) , 3523 mg/kg (Male Rat/Oral), >21.3 g/kg (Rabbit/Dermal)	5000 ppm/4H unverified (Rat/Inhalation), 6350 ppm/4H (Rat/Inhalation)
Ethylene Glycol Monobutyl Ether	1-5	111-76-2	1167 mg/kg (Mouse/Oral), 1230	450 ppm/4H (Rat/Inhalation),



			mg/kg (Mouse/Oral), 470 mg/kg (Rat/Oral), 530 mg/kg (Rat/Oral), 917 mg/kg (Rat/Oral), 320 mg/kg (Rabbit/Oral), 1200 mg/kg (Guinea Pig/Oral), 220 mg/kg (Rabbit/Dermal), 99 mg/kg (Rabbit/Dermal)	700 ppm/7H (Mouse/Inhalation) , 3380 mg/m <sup>3</sup> /7H (Mouse/Inhalation) , 2900 mg/m <sup>3</sup> /7H (Rat/Inhalation)
Light ends of polyethylbenzene residue	178535-25-6	1-5	Not Available	Not Available
Long chain Dicarboxylic Acid	Proprietary	1-5	Not Available	Not Available

**Note:** under the Hazardous Materials Review Act, a claim for exemption was filed for this product on November 15, 2006 and was assigned a registry number 6768.

### **SECTION III: Hazards Identification**

- Emergency Overview** No hazards under normal conditions of use.
- Route of entry** Skin contact, skin adsorption, eye contact, inhalation and ingestion are the primary routes of exposure to this product.
- Ingestion** May cause irritation of the mouth and throat, abdominal discomfort, nausea, vomiting and diarrhea. Ingestion may cause central nervous system depression with anesthetic effects such as dizziness, headache, confusion, loss of coordination, and loss of consciousness.  
 Aspiration hazard: small amounts aspirated into the lungs during ingestion or vomiting may cause lung injury, possibly leading to death. Symptoms of aspiration into the lungs include coughing, gasping, choking, shortness of breath, bluish discolored skin, rapid breathing and heart rate. Chemical pneumonitis from aspiration may result in fever. Pulmonary edema or bleeding, drowsiness, confusion, coma and seizures may occur in more serious cases. Symptoms develop immediately or as late as 24 hours after exposure, depending on how much chemical entered the lungs.
- Inhalation** Inhalation may cause irritation of the respiratory passages, headache, weakness, temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, loss of coordination, and loss of consciousness. Nausea and vomiting may also occur. Higher exposures may result in fatality from gross overexposure. Aspiration into lungs may cause pneumonitis.
- Skin Contact** Skin contact with the product may cause skin irritation with discomfort or rash, and may be absorbed through the skin in toxic amounts. May cause sensitization by skin contact.
- Eye Contact** May cause eye irritation with discomfort, tearing, or blurring of vision.
- Effects of Chronic Exposure** See individual routes of entry above.
- Effects of Acute Exposure** See individual routes of entry above.



## **SECTION IV: First Aid Measures**

<b>Ingestion</b>	Do not induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Administer artificial respiration if breathing has stopped. If the heart rate has stopped, trained personnel should begin cardiopulmonary resuscitation (CPR) immediately.
<b>Skin Contact</b>	Immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.
<b>Inhalation</b>	Remove source of contamination or 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 personnel 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. Immediate medical assistance is required.
<b>Eye Contact</b>	Flush with gently flowing, clean tepid water for at least 15 minutes or until chemical is removed, keeping eyelids open. Take care not to rinse the contaminated water into the unaffected eye or face. If irritation persists, consult physician.
<b>Notes to Physician</b>	Treatment based on sound judgment of physician and individual reactions of patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g. gastric lavage after endotracheal intubation).

## **SECTION V: Fire-Fighting Measures**

<b>Flammability</b>	Non flammable at ambient temperature. Liquid may burn at temperatures above flash point if exposed to an open flame.
<b>Means of Extinction</b>	Carbon dioxide, dry chemicals, alcohol foam, or water spray. Keep containers cool with water spray. When fighting fire, wear full protective clothing, including NIOSH approved self-contained breathing apparatus. Avoid spreading with water flooding. Fight fire from maximum distance as heat may decompose material and cause containers to rupture. Product may produce floating fire hazards in extreme fire conditions. This product can produce flammable vapors that may travel to a source of ignition and flash back.
<b>Flash Point (ASTM D92)</b>	63.9°C (147°F)
<b>Upper Flammability Limits</b>	Not Determined.
<b>Lower Flammability Limits</b>	Not Determined.
<b>Auto Ignition Temperature</b>	Not Determined.
<b>Hazardous Combustion Products</b>	Carbon monoxide and oxides of nitrogen.



**Fire and Explosion Hazards** None

**Sensitivity to Static Discharge** None at normal temperatures below flash point. Do not cut, weld, or pressurize empty container. Container may explode in heat of fire.

## **SECTION VI: Accidental Release Measures**

**Personal Protection** Wear suitable protective equipment. Eliminate sources and or potential sources of ignition.

**Environmental Precautions** Product has low solubility in water. Do not flush to sewers, streams or other bodies of water. Dike if needed. For disposal, see Section XIII.

**Methods for cleaning up** Combustible. Isolate hazard are and restrict access. Remove ignition sources and work with non-sparking tools. Absorb on inert material such as sand, earth, sawdust, oil dry, vermiculite, or other absorbent material. Sweep up and collect in a suitable container for disposal. Observe government regulations.

**Large spills** Stop leak if without risk. Dike to contain spill. Pump excess material into suitable container (metal drums, metal tanks, or such). Clean up residual with absorbent material, place in appropriate container, and flush with water. Unless released material is cleaned up for reprocessing, recycling, or reuse, a release of 100lbs may trigger reporting requirements for CERCLA Section 103.

## **SECTION VII: Handling and Storage**

**Handling** Handle and open containers with care. Avoid excess heat, breathing vapors, and prolonged or repeated contact with skin. Do not handle 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.

**Storage** Store in a cool, dry, well ventilated area. Keep away from heat, spark and open flame. Place away from incompatible materials. Store in accordance with good industrial practices.

## **SECTION VIII: Exposure Controls / Personal Protection**

Component	Exposure Limit (ACGIH)	Exposure Limit (OSHA)	Immediately Dangerous to Life and Health (IDLH)
Solvent Naphtha (petroleum), Heavy Aromatic	Not available	Not available	Not available
2-Ethylhexyl Nitrate	Not available	Not available	Not available
Polymeric Succinimide	Not available	Not available	Not available
Xylene, Mixture of Isomers	150 ppm STLE 100 ppm TLV-TWA	435 mg/ m <sup>3</sup> TWA 100 ppm TWA	Not available



		150 ppm STEL 655 mg/ m <sup>3</sup> STEL	
Ethylene Glycol Monobutyl Ether	20 ppm (97 mg/ m <sup>3</sup> ) TLV-TWA	50 ppm (240 mg/ m <sup>3</sup> ), skin, PEL-TWA	700 ppm
Light ends of polyethylbenzene residue	Not available	Not available	Not available
Long chain Dicarboxylic Acid	Not available	Not available	Not available

<b>Engineering Controls</b>	Use only with adequate ventilation to keep airborne levels below recommended exposure limits. Keep container tightly closed.
<b>Respiratory Protection</b>	Use NISOH/MSHA approved respiratory protection if vapor concentration exceeds permissible exposure limit.
<b>Eye Protection</b>	Use chemical splash goggles. Also use face shield if risk of splashing present.
<b>Skin Protection</b>	Use rubber or plastic apron, and boots, pants, hood, and jack where appropriate to prevent skin contact.
<b>Hand Protection</b>	Use oil resistant gloves.

## **SECTION IX: Physical and Chemical Properties**

<b>Physical State:</b>	Liquid
<b>Odour:</b>	Aromatic
<b>Appearance:</b>	Clear, amber
<b>Odour Threshold:</b>	Not established
<b>Specific Gravity:</b>	0.939 at 15.6°C ( 60°F)
<b>Vapour Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Boiling Point:</b>	Not available
<b>Pour Point:</b>	-40°C (-40°F)
<b>Solubility in Water:</b>	<5 wt%
<b>pH:</b>	Not available
<b>Partitioning Coefficient:</b>	Not available

## **SECTION X: Stability and Reactivity**

<b>Chemical Stability:</b>	Stable
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**Incompatibility:** Avoid contact with strong oxidizing agents, excessive heat, and all ignition sources.  
**Reactivity:** No reactivity  
**Polymerization:** Will not occur  
**Decomposition Products:** Decomposes with heat. Hazardous gases/vapors produced are oxides of nitrogen and carbon monoxide. Decomposition temperature: >100°C (>212°F)

## **SECTION XI: Toxicological Information**

**Skin Contact** Frequent or prolonged contact may irritate the skin and cause discomfort or a skin rash. May cause sensitization by skin contact.

**Skin Absorption** May be absorbed through the skin in toxic amounts.

**Eye Contact** May cause eye irritation with discomfort, tearing, or blurring of vision.

**Inhalation** May cause irritation of the respiratory passages, headache, weakness, temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, loss of coordination, and loss of consciousness. Nausea and vomiting may occur. Higher exposures may result in fatality from gross overexposure. Aspiration into lungs may cause pneumonitis.

**Ingestion** May cause irritation of the mouth and throat, causing abdominal discomfort, nausea, vomiting and diarrhea. May also cause central nervous system depression with anesthetic effects such as dizziness, headache, confusion, loss of coordination, and loss of consciousness. Aspiration hazard. Small amounts aspirated into the lungs include coughing, gasping, choking, shortness of breath, bluish discolored skin, rapid breathing and heart rate. Chemical pneumonitis from more serious cases. Symptoms may develop immediately or as late as 24 hours after exposure, depending on how much chemical entered the lungs.

**Sensitization:** Repeated or prolonged contact may cause sensitization in some individuals.

### **Carcinogenicity:**

<b>Ingredients</b>	<b>IARC – Carcinogens</b>	<b>ACGIH - Carcinogens</b>
Solvent Naphtha (petroleum), Heavy Aromatic	Not listed	Not listed
2-Ethylhexyl Nitrate	Not listed	Not listed
Polymeric Succinimide	Not listed	Not listed
Xylene, Mixture of Isomers	Group 3	Listed
Ethylene Glycol Monobutyl Ether	Group 3	Listed
Light ends of polyethylbenzene residue	Not listed	Not listed
Long Chain Dicarboxylic Acid	Not listed	Not listed

**Reproductive Toxicity:** Although abnormal sperm were observed after an interperitoneal injection in rats, xylene did not produce reproductive effects. An increase in menstrual disorders has been reported in women exposed to organic solvents, but is not possible to attribute this to xylene alone. Xylene has produced fetotoxic effects (delayed ossification and behavioral effects) in animals, in the absence of maternal toxicity.

**Teratogenicity:** In studies where rats and mice were exposed by inhalation or ingestion, harmful effects in the offspring (teratogenicity, embryotoxicity, and/or fetotoxicity) were either not observed or were observed in the presence of significant harmful effects in the mother. Animal information suggests that xylenes are not teratogenic or embryotoxic at exposure levels that are not harmful to the mother.

**Mutagenicity:** There have been few studies investigating the mutagenic potential of xylenes. These were negative. Ethylene glycol butyl ether has caused mutagenic effects in humans and mammalian cells in vitro. The



polymeric succinimide has produced genetic damage in bacteria and mammalian cell cultures, but animal tests have not been carried out.

**Toxicologically Synergistic Products**

Not available.

**Additional Information:**

Heavy Aromatic Naphtha (64742-94-5) is a severe skin irritant, but is not a skin sensitizer in animals. Dermal exposure produces central nervous system (CNS) symptoms in rats, whereas ingestion produces CNS effects in animals. No animal test reports available to define carcinogenic, mutagenic, developmental or reproductive hazards.

Long term exposure of xylene may cause nervous system effects with symptoms such as headaches, irritability, depression, insomnia, agitation, extreme tiredness, tremors, impaired concentration. And short term memory loss. The blood platelet count may be reduced on exposure to xylene, which is reversible when exposure is stopped. Repeated contact can produce dermatitis (dryness and cracking). Chronic inhalation exposure to xylene causes mid-frequency hearing loss in laboratory animals. Reduced body weight was observed in male rats in one test.

Workers exposed to 2-ethylhexyl nitrate reported throbbing headaches and heart palpitations. Single ingestion exposure produced weight loss, diarrhea, loss of coordination and prostration. Repeated inhalation exposures produced weight loss and increased liver weight.

Ethylene glycol butyl ether (EGBE) acutely inhaled is a toxic respiratory irritant that produces CNS effects in animals. Repeated dermal exposure to EGBE causes blood effects in animals. Acute inhaled EGBE vapor caused blood and CNS effects in rats. In rats, chronic inhalation of EGBE produced anemia and spleen effects. Female rats showed significantly higher rates of malignant adrenal gland tumors. Chronic inhalation of EGBE produced anemia and spleen effects in male and female mice, males exhibited significantly higher rates of malignant liver tumors. Oral exposure to EGBE causes CNS effects in rats. Chronic EGBE ingestion induces hematopoietic effects in rats.

The polymeric succinimide is a severe skin irritant, eye irritant, and skin sensitizer in animals. Effects of long term dermal exposures include hyperkeratosis and necrosis of the epidermis but no evidence of increased incidence of tumors. Repeated dietary administration of high doses produced depressed liver weights and body weight loss.

**SECTION XII: Ecological information**

**Environmental Effects (Ecotoxicological Data):**

Component	Ecotoxicity – Fish Species Data	Acute Crustaceans Toxicity	Ecotoxicity – Fresh Water Algae Data
Solvent Naphtha (petroleum), Heavy Aromatic	Fathead Minnows 96 hr LC50 4.2-20.8 mg/L	Not available	Not available
2-Ethylhexyl Nitrate	Not available	Not available	Not available
Polymeric Succinimide	Not available	Not available	Not available
Xylene, Mixture of Isomers	LC50 (Pimephales promelas) 13.4 mg/L LC50 (Lepomis macrochirus) 16.1 mg/L LC50 (Pimephales promelas) 26.7 mg/L LC50 (Oncorhynchus mykiss) 8.05 mg/L	Not available	Not available
Ethylene Glycol Monobutyl Ether	LC50 (Lepomis macrochirus) 1490 mg/L	Not available	Not available



Light ends of polyethylbenzene residue	Not available	Not available	Not available
Long chain Dicarboxylic Acid	Not available	Not available	Not available

**Environmental Fate:**

No specific environmental fate data is available. This product is not expected to be readily biodegradable.

**SECTION XIII: Disposal Consideration**

**RCRA 40 CFR 261 Classification** Not listed  
**US EPA Waste Number / Classification** Not available

**Waste Disposal**

Dispose of waste material in compliance with all federal, state, provincial and local regulations. Incinerate in a furnace or bury in an approved landfill where permitted under appropriate federal, provincial and local regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

**SECTION XIV: Transport Information**

**Department of Transport (U.S.):** Regulated under DOT  
**TDG (Canada):** Regulated under TDG.  
**DOT Proper Shipping Name:** Combustible Liquid, n.o.s. (2-Ethylhexyl Nitrate, Aromatic Hydrocarbons)  
**DOT Hazard Class:** 3  
**NA Number:** NA1993  
**Packing Group:** III  
**DOT Labels: Primary:** Combustible Liquid  
**Subsidiary:** None required  
**DOT Placards:** None required  
**Note:** Flash Point of 63.9°C (147°F). Not regulated in containers <119 gallons  
**Marine Pollutant:** Yes

**TDG (Canada):** Regulated under TDG for MARINE TRANSPORT ONLY.  
**TDG Proper Shipping Name:** Environmentally Hazardous Substance, Liquid, n.o.s. (2-Ethylhexyl Nitrate), Marine Pollutant  
**Hazard Class:** 9  
**UN Number:** UN3082  
**Packing Group:** III  
**IMO Label:** Miscellaneous Dangerous Goods  
**Note:** TDG documentation and Dangerous Goods Safety Marks do not apply if in transport solely on land by road vehicle or railway vehicle and/or by air. (*sec 1.45.1 Marine Pollutants Exemption, SOR/2008-34 & Special Provision A97, Technical Instructions for the Safe Transport of Dangerous Good by Air, ICAO*)  
**Marine Pollutant:** Yes  
**Reportable Quantity:** Naphthalene 100 lbs, Xylene 100 lbs  
**Shipping Containers:** Steel Drums UN1A1/Y/100



## **SECTION XV: Regulatory Information**

### **CPR Compliance:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

### **OSHA Hazard Communication Standards 29CFR 1910.1200:**

This product has been determined to contain carcinogens required to be listed under OSHA Hazards Communication Standards 29 CFR 1910.1200 and is toxic and combustible.

### **WHMIS Classification:**

This product is classified under the following WHMIS category:

- B3 Combustible Liquids
- D1A Very Toxic Materials
- D2A Very Toxic Materials
- D2B Toxic Materials

### **CERCLA:**

Not listed on CERCLA (40CFR 302.4). If this product is accidentally spilled, it is not subject to special reporting under requirements of the Comprehensive Environmental Response and Liability Act. We recommend you contact local authorities to determine if there may be other local reporting requirements.

### **SARA Title III Section 311/312:**

Under the provisions of Title III, Section 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard category:

Acute:	Yes
Chronic:	Yes
Fire:	Yes
Reactivity:	Yes
Pressure:	No

### **SARA Title III Section 313:**

This product does contain more than 1 % of a chemical substances listed under SARA Section 313.  
Xylene, mixture of isomers  
Ethylene glycol monobutyl ether

### **RCRA:**

Not controlled under **RCRA** (40 CFR 261.33) for hazardous waste.

### **NPRI:**

Not Controlled under the **NPRI** of the Canadian EPA.

### **Chemical Inventory**

Canada: The ingredients of this product are on the DSL, the NDSL, or exempt.  
United States: The ingredients of this product are on the TSCA or exempt.



## **SECTION XVI Other Information**

### **HMIS Information**

<b>Degree of Hazard</b>	<b>HMIS Rating</b>
4= Severe	Health 2
3= Serious	Flammability 2
2= Moderate	Reactivity 1
1= Slight	
0= Minimal	

#### **Revision Information**

**Prepared by:** Maryn Research

Phone: 1-403-252-2239

**Effective Date:** January 29, 2009

**Supersedes:** July 7, 2008

**Revision:** 3.0

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