SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **Power Up for Gasoline (LHP)**

Product use: Gas Additive

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
Phone 1-403-252-2239

Date Prepared July 23, 2008

SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients	Concentration %	C.A.S. #	LD_{50} (Species/Route)	LC_{50} (Species/Route)
Hydrocarbon Solvent	30-60%	64741-8-2	NA	NA
Polyether amine	15-40%	Proprietary	NA	NA
Petroleum naphtha	1-5%	64742-94-5	NA	NA
Substituted aliphatic amine	1-5%	Proprietary	NA	NA
Naphthalene	0.1-1%	91-20-3	NA	NA

NA: Not Available

The oral LD50 for this product in rats is >5000 mg/kg.
The dermal LD50 for this product in rabbits is >2000 mg/kg.

SECTION III: Hazards Identification

Emergency Overview	Harmful if inhaled. Causes skin, eye, and respiratory tract irritation. Combustible liquid. Contains components which may cause cancer. May cause chronic health effects.
Route of entry	Skin contact, skin absorption, eye contact, inhalation, and ingestion.
Ingestion	Causes irritation of mouth, oesophagus and stomach, with nausea, vomiting, diarrhea, and abdominal pain. Material can be aspirated into lungs during the act of swallowing or vomiting. This could result in pulmonary edema and chemical pneumonitis.
Inhalation	Nose, throat, and lung irritant. Based on data from components or similar materials. Exposure to a high concentration of vapour or mist is irritating to the respiratory tract.
Skin Contact and absorption	May cause skin irritation with discomfort or rash.
Eye Contact	Causes eye irritation with discomfort, tearing, or blurring of vision.
Effects of Chronic Exposure	Repeated exposure over prolonged periods of time may cause irritation to the skin, respiratory system and eyes. Repeated overexposure to petroleum naphtha can cause nervous system damage. Follow good industrial hygiene practices to avoid exposure.
Effects of Acute Exposure	Breathing vapours caused by high temperature or swallowing large quantities may be irritating to skin, respiratory system, mucous membranes and eyes.

SECTION IV: First Aid Measures

Ingestion	Do not induce vomiting. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. Consult physician immediately. If vomiting occurs naturally, victim should lean forward to reduce the risk of aspiration.
Skin Contact	Wash with soap and water. Remove contaminated clothing, and launder prior to reuse. If irritation occurs, consult physician.
Inhalation	Remove victim to fresh air if adverse effects are observed. If breathing is difficult, oxygen may be administered by a trained professional. If no longer breathing, a trained person should apply artificial respiration. If irritation persists or if toxic symptoms are observed, consult physician immediately.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists, consult physician.
Notes to Physician	Treatment based on sound judgment of physician and individual reactions of the 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.

SECTION V: Fire-Fighting Measures

Flammability	Combustible Liquid. Non flammable at ambient temperature. Liquid may burn at temperatures above flash point if exposed to an open flame.

Means of Extinction	Carbon dioxide foam, dry chemicals, or foam. Keep containers cool with water spray. When fighting fire, treat as petroleum product, wear full protective clothing, including NIOSH approved self-contained breathing apparatus. Avoid spreading with water flooding.
Flash Point (ASTM D92)	74°C (126.5°F)
Upper Flammability Limits	Not Determined.
Lower Flammability Limits	Not Determined.
Auto Ignition Temperature	Not Determined.
Hazardous Combustion Products	Oxides of carbon, smoke, aldehydes and other products of incomplete combustion. Ammonia, propylamine, plyalkylglycols, and aliphatic alcohols may also be released
Fire and Explosion Hazards	Vapours may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating.
Sensitivity to impact 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 and ventilate spill area.
Environmental Precautions	Product is insoluble in water. Do not flush to sewers, streams or other bodies of water. For disposal, see Section XIII.
Methods for cleaning up	Absorb on inert material such as sand, earth, vermiculite. 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).

SECTION VII: Handling and Storage

Handling	Keep away from heat and potential sources of ignition. Keep containers closed when not in use. Do not discharge into drains or the environment; dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Wash thoroughly after handling. Empty containers retain material residue. Do not cut weld, braze, solder, drill or grind containers.
Storage	Store in a cool well ventilated area. Keep away from heat spark and open flame. Equip bulk storage tanks with overfill protection such as high level alarms or secondary containment. Store drums in area with secondary containment. Storage area should be covered to prevent rain water from entering.

SECTION VIII: Exposure Controls / Personal Protection

Exposure Limits

If used in a way that generates a mist, observe the limits for mineral oil mist

Component	Exposure Limit (ACGIH)	Exposure Limit (OSHA)	Immediately Dangerous to Life and Health (IDLH)
Hydrocarbon solvent	NE	NE	NE
Polyether amine	NE	NE	NE
Petroleum naphtha	NE	NE	NE
Substituted aliphatic amine	NE	NE	NE
Naphthalene	10 ppm TWA-PEL	10 ppm TWA-PEL	250 ppm

NE: Not Established

Engineering Controls Use material in a well ventilated area only. Additional ventilation or exhaust may be required to maintain concentrations below recommended exposure limits.

Respiratory Protection Use approved respirator with dual organic vapour / mist and particulate cartridge if vapour concentration exceeds permissible exposure limit Use self-contained breathing apparatus for entry into confined space, poorly ventilated areas, and large-spill clean up sites.

Eye Protection Safety glasses. Use chemical splash goggles or face shield if risk of splashing present.

Skin Protection Use gloves, coveralls, aprons or boots as necessary to minimize contact. Wear either a chemical protective suit or apron when potential for contact with material exists. Do not wear rings, watches, or similar apparel that could entrap the material and cause a skin reaction.

Hand Protection Use oil resistant gloves (Neoprene).

SECTION IX: Physical and Chemical Properties

Physical State: Liquid
Odour: Mild petroleum odour
Appearance: Light yellow
Odour Threshold: Not established
Specific Gravity: 0.89 at 15.6°C (60.1°F)
Vapour Pressure: Not available
Vapour Density: Not available
Evaporation Rate: Not available
Boiling Point: Not available
Pour Point: -27°C (-17°F)
Solubility in Water: Insoluble
pH: Not available
Partitioning Coefficient: Not available

SECTION X: Stability and Reactivity

Chemical Stability: Stable at moderately elevated temperatures and pressures.
Incompatibility: Avoid contact with oxidizing agents, strong acids, and ignition sources.
Reactivity: No reactivity
Polymerization: Will not occur
Decomposition Products: Oxides of carbon, smoke, aldehydes and other products of incomplete combustion. Ammonia, propylamine, plyalkylglycols, and aliphatic alcohols may also be released.

SECTION XI: Toxicological Information

Effects of Acute and Chronic Exposure:

Skin Contact Frequent or prolonged contact may irritate the skin and cause a skin rash.

Skin Absorption No evidence of adverse effects from available information. Prolonged contact may cause mild irritation.

Eye Contact Slight irritation to eyes, but will not injure eye tissue.

Inhalation No inhalation dangers at room temperature as there are no vapours. If the product is misted, high concentrations of vapours and/or mist may cause irritation, experienced as nasal discomfort and discharge.

Ingestion No significant hazard. Minimal toxicity. Ingestion of large amounts may cause intestinal obstruction. If drawn into lungs from swallowing or vomiting, may cause bronchopneumonia or pulmonary edema.

Irritancy: Slight irritation to eyes. Frequent or prolonged contact may irritate skin. If misted, inhalation of mist may cause irritation.

Sensitization: No data available to indicate product or components may be a sensitizer.

Carcinogenicity:

Ingredients	IARC – Carcinogens	ACGIH - Carcinogens
Hydrocarbon solvent	Not listed	Not listed
Polyether amine	Not listed	Not listed
Petroleum naphtha	Not listed	Not listed
Substituted aliphatic amine	Not listed	Not listed
Naphthalene	Group 2B	Listed

Reproductive Toxicity: No information is available and no adverse effects are anticipated.

Teratogenicity: No information is available and no adverse effects are anticipated.

Embryotoxicity: No information is available and no adverse effects are anticipated.

Mutagenicity: No information is available and no adverse effects are anticipated.

Toxicologically Synergistic Products: Not available.

SECTION XII: Ecological information

Freshwater Fish
The acute LC50 is <1 mg/L based on component data.

Freshwater Invertebrates
The acute EC50 is <1 mg/L based on component data.

Environmental Fate:
At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.

Environmental Effects:
Bioaccumulation: 25% or greater of the components potentially bioconcentrate, based on measured octanol/water partition coefficients.

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.

SECTION XIV: Transport Information

Department of Transport (U.S.):	Regulated under DOT
TDG (Canada):	Not Regulated
DOT Proper Shipping Name:	Combustible Liquid, n.o.s. (Hydrocarbon solvent, Petroleum naphtha), RQ (Naphthalene)
DOT NAERG:	128
NA Number:	NA1993
Packing Group:	III
Subsidiary:	None required
DOT Placards:	None required
Bulk Quantity:	85000 litres, 22457 gallons
Non-Bulk Quantity:	207.8 litres, 55 gallons (Non-Bulk not regulated under DOT)

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:
Not Available.

WHMIS Classification:
This product is classified under the following WHMIS category:
B3 Combustible Liquids
D2A Very Toxic Materials

CERCLA:

This product contains the following hazardous components reportable under CERCLA: Naphthalene CAS no. 91-20-3, Reportable Quantity: 21043 litres, 5560 gallons.

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: **NONE.**

SARA Title III Section 313:

This product contains more than 1 % of any of the chemical substances listed under SARA Section 313:
0.2% Naphthalene, CAS no. 91-20-3

RCRA:

The following components are listed under RCRA with the EPA waste number in bold: 0.0002% Benzene, CAS no. 71-43-2, **D018**.

Chemical Inventory

Canada: The ingredients of this product are on the DSL.
United States: The ingredients of this product are on the TSCA

SECTION XVI Other Information

HMIS Information

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

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