

**Section 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Fuel Enhancer  
**Product Number:** 206000C Fuel Enhancer 4 x 3.79 L  
206100C Fuel Enhancer 12 x 946 mL  
206200C Fuel Enhancer 24 x 177 mL  
**Product Use:** Motor fuel additive.  
**Manufacturer/Supplier:** R.B. Howes & Co., Inc. / Howes Lubricator  
60 Ocean State Drive  
North Kingstown, RI 02852  
**Phone Number:** 1-401-294-5500, 1-800 GET HOWES (438-4693)  
**Emergency Phone:** CHEMTREC 1-800-424-9300  
**Date of Preparation:** June 1, 2015

**Section 2: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

**WARNING**

COMBUSTIBLE LIQUID. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. IRRITATING TO SKIN. HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED. MAY CAUSE CANCER. MAY CAUSE TERATOGENICITY AND EMBRYOTOXICITY.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.  
**Skin:** Irritating to skin.  
**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting. Harmful: may cause lung damage if swallowed.  
**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. This product may be aspirated into the lungs and cause chemical pneumonitis.

**Chronic Effects:** Contains ingredients known or suspected to be carcinogenic, teratogenic and/or embryotoxic.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

**Potential Environmental Effects:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

**Section 3: COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Ingredient</b>	<b>CAS #</b>	<b>Wt. %</b>
Distillates (petroleum), hydrotreated middle	64742-46-7	30 - 60
Stoddard solvent	8052-41-3	15 - 40
Distillates (petroleum), hydrotreated light	64742-47-8	10 - 30
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	1 - 5
Light aromatic solvent naphtha (petroleum)	64742-95-6	1 - 5
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	68603-38-3	1 - 5
1,2,4-Trimethylbenzene	95-63-6	1 - 5
Nonane	111-84-2	0.5 - 1.5
Naphthalene	91-20-3	0.1 - 1
Xylene	1330-20-7	0.1 - 1
1,3,5-Trimethylbenzene	108-67-8	0.1 - 1
Ethylbenzene	100-41-4	0.1 - 1

**Section 4: FIRST AID MEASURES**

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- Skin Contact:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical advice/attention if you feel unwell.
- Ingestion:** If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention or call poison control immediately.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

**Section 5: FIRE FIGHTING MEASURES**

- Flammability:** Combustible by WHMIS criteria.
- Means of Extinction:**
- Suitable Extinguishing Media:** Powder, foam, carbon dioxide, water fog.
  - Unsuitable Extinguishing Media:** Do not use water jet.
- Products of Combustion:** May include, and are not limited to: oxides of carbon.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
  - Sensitivity to Static Discharge:** Not available.
- Protection of Firefighters:** Use water spray to keep fire-exposed containers cool. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

**Section 6: ACCIDENTAL RELEASE MEASURES**

- Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

**Environmental Precautions:** Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

**Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Scoop up material and place in a disposal container. Spilled material may present a slipping hazard. Provide ventilation.

**Other Information:** Spilled material may present a slipping hazard.

### Section 7: HANDLING AND STORAGE

**Handling:**

Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking.

**Storage:**

Keep locked up and out of reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool place.

### Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

<b>Ingredient</b>	<b>Exposure Limits ACGIH-TLV</b>
Distillates (petroleum), hydrotreated middle	Not available.
Stoddard solvent	100 ppm
Distillates (petroleum), hydrotreated light	Not available.
Solvent naphtha (petroleum), heavy aromatic	Not available.
Light aromatic solvent naphtha (petroleum)	Not available.
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	Not available.
1,2,4-Trimethylbenzene	Not available.
Nonane	200 ppm
Naphthalene	10 ppm
Xylene	100 ppm
1,3,5-Trimethylbenzene	25 ppm
Ethylbenzene	20 ppm

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

**Personal Protective Equipment:**

**Eye/Face Protection:** Safety glasses or goggles are recommended.

**Hand Protection:** Wear chemical resistant gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Translucent.
<b>Colour:</b>	Amber.
<b>Odour:</b>	Distinctive.
<b>Odour Threshold:</b>	Not available.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Boiling Point:</b>	Not available.
<b>Flash Point:</b>	≥ 65.5 °C (≥ 150 °F)
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	Not available.
<b>Solubility in Water:</b>	Not available.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC content, wt. %:</b>	Not available.

**Section 10: STABILITY AND REACTIVITY**

**Stability:** Stable under normal storage conditions. Keep in a cool place.

**Conditions of Reactivity:** Heat. Incompatible materials. Sources of ignition.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

**Section 11: TOXICOLOGY INFORMATION**

**EFFECTS OF ACUTE EXPOSURE**

**Component Analysis**

<b>Ingredient</b>	<b>LD<sub>50</sub> (oral)</b>	<b>LC<sub>50</sub></b>
Distillates (petroleum), hydrotreated middle Stoddard solvent	> 5000 mg/kg, rat Not available.	4.6 mg/L 4hr, rat Not available.
Distillates (petroleum), hydrotreated light	> 5000 mg/kg, rat	> 5.2 mg/L 4hr, rat
Solvent naphtha (petroleum), heavy aromatic	> 5000 mg/kg, rat	> 5.28 mg/L 4hr, rat; > 5.2mg/L 4hr, rat;
Light aromatic solvent naphtha (petroleum)	8400 mg/kg, rat	3400 ppm 4hr, rat
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	> 3000 mg/kg, rat	Not available.
1,2,4-Trimethylbenzene	3400 mg/kg, rat	18000 mg/m <sup>3</sup> 4hr, rat
Nonane	Not available.	3200 ppm 4hr, rat > 340 mg/m <sup>3</sup> 1hr, rat;
Naphthalene	490 mg/kg, rat	> 0.4 mg/L 4hr, rat 5000 ppm 4hr, rat;
Xylene	4300 mg/kg, rat	47635 mg/L 4hr, rat
1,3,5-Trimethylbenzene	Not available.	24000 mg/m <sup>3</sup> 4hr, rat
Ethylbenzene	3500 mg/kg, rat	17.2 mg/L 4hr, rat

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Irritating to skin. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting. Harmful: may cause lung damage if swallowed.

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. This product may be aspirated into the lungs and cause chemical pneumonitis.

**EFFECTS OF CHRONIC EXPOSURE**

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS criteria.

**Carcinogenicity:** Hazardous by WHMIS criteria.

**Ingredient**

**Chemical Listed as Carcinogen or Potential Carcinogen \***

Distillates (petroleum), hydrotreated middle	Not listed.
Stoddard solvent	Not listed.
Distillates (petroleum), hydrotreated light	Not listed.
Solvent naphtha (petroleum), heavy aromatic	Not listed.
Light aromatic solvent naphtha (petroleum)	Not listed.
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	Not listed.
1,2,4-Trimethylbenzene	Not listed.
Nonane	Not listed.
Naphthalene	G-A4, I-2B, N-2
Xylene	G-A4, I-3
1,3,5-Trimethylbenzene	Not listed.
Ethylbenzene	G-A3, I-2B

\* See Section 15 for more information.



# MATERIAL SAFETY DATA SHEET

## Fuel Enhancer

**Mutagenicity:** Not hazardous by WHMIS criteria.

**Reproductive Effects:** Not hazardous by WHMIS criteria.

**Developmental Effects:**

**Teratogenicity:** Hazardous by WHMIS criteria.

**Embryotoxicity:** Hazardous by WHMIS criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS criteria.

**Skin Sensitization:** Not hazardous by WHMIS criteria.

**Toxicologically Synergistic Materials:** Not available.

### Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

### Section 13: DISPOSAL CONSIDERATIONS

**Disposal Instructions:**

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

### Section 14: TRANSPORTATION INFORMATION

**TDG Classification**

Not regulated

### Section 15: REGULATORY INFORMATION

**Federal Regulations**

**Canada:** 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.

**Global Inventories**

**Ingredient**

**Canada  
DSL/NDSL**

Distillates (petroleum), hydrotreated middle	DSL
Stoddard solvent	DSL
Distillates (petroleum), hydrotreated light	DSL
Solvent naphtha (petroleum), heavy aromatic	DSL
Light aromatic solvent naphtha (petroleum)	DSL
Amides, C16-18 and C18-unsatd., N,N-bis(hydroxyethyl)	DSL
1,2,4-Trimethylbenzene	DSL
Nonane	DSL
Naphthalene	DSL
Xylene	DSL
1,3,5-Trimethylbenzene	DSL
Ethylbenzene	DSL

**HMIS - Hazardous Materials Identification System**

Health - 2\*      Flammability - 2      Physical Hazard - 0      PPE – B

**NFPA - National Fire Protection Association:**

Health - 2      Fire - 2      Reactivity - 0

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**WHMIS Classification(s):**

- Class B3 - Combustible Liquid
- Class D2A - Carcinogenicity
- Class D2A - Teratogenicity and Embryotoxicity
- Class D2B - Skin/Eye Irritant

**WHMIS Hazard Symbols:**



**SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:**

**ACGIH (G)** American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

**Section 16: OTHER INFORMATION**

**Disclaimer:**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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