

## MATERIAL SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION

**Product identifier** : **FUEL STABILIZER**

**Product Use** : Fuel additive.

**Chemical Family** : Mixture.

**Manufacturer part no.** : M5312C

**Supplier's name and address:**  
**Radiator Specialty Co., of Canada**  
 1711 Aimco Blvd.  
 Mississauga, ON, Canada  
 L4W 1H7

**Manufacturer's name and address:**  
 Refer to Supplier

**Information Telephone #** : (905) 625-9117 (Monday - Friday, 9AM - 5PM)

**24 Hr. Emergency Tel #** : 613-996-6666 (CANUTEC)

### SECTION 2 - HAZARDS IDENTIFICATION

**Classification** : WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR).  
 WHMIS classification:  
 Class B3 (Combustible Liquids);  
 Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material);  
 Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

Labelling: Phrases recommended to appear on a supplier label, can be found in Section 15. WHMIS symbols required on a supplier label:



**Emergency Overview** : Red liquid. Petroleum odour.  
 WARNING! Combustible liquid and vapour. Vapour may cause flash fire! Harmful if inhaled. Harmful if absorbed through the skin. Harmful or fatal if swallowed. May cause nausea, vomiting, headache and other central nervous system effects. Causes eye, skin and respiratory irritation. May be an aspiration hazard. Contains material which can cause damage to the blood system, the liver and the kidneys. Contains material which may cause cancer, based on animal data.

### POTENTIAL HEALTH EFFECTS:

#### Signs and symptoms of short-term (acute) exposure

**Inhalation** : May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

**Skin** : May cause moderate skin irritation. May be absorbed and cause symptoms similar to those for inhalation.

**Eyes** : May cause mild to moderate irritation.

**Ingestion** : May cause irritation of mouth, throat, and stomach. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Material is an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

#### Effects of long-term (chronic) exposure

: Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, jaundice and kidney and liver damage.

**Carcinogenic status** : Possible cancer hazard. See TOXICOLOGICAL INFORMATION, Section 11.

**Additional health hazards** : See TOXICOLOGICAL INFORMATION, Section 11.

**Potential environmental effects** : See ECOLOGICAL INFORMATION, Section 12.

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Ingredients</b>	<b>CAS #</b>	<b>Wt. %</b>
stoddard solvent	8052-41-3	60.00 - 100.00
Petroleum naphtha	64742-94-5	1.00 - 5.00
2-Ethylhexanol	104-76-7	0.10 - 1.00
Naphthalene	91-20-3	0.10 - 0.15

**SECTION 4 - FIRST AID MEASURES**

- Inhalation** : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Seek immediate medical attention/advice.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek prompt medical attention.
- Ingestion** : Seek immediate medical attention/advice. Do not induce vomiting. Never give anything by mouth to an unconscious person.
- Notes For Physician** : Treat symptomatically. This product is a CNS depressant.

**SECTION 5 - FIRE FIGHTING MEASURES****Fire hazards/conditions of flammability**

- : Combustible liquid and vapour. Will ignite when exposed to heat, flame and other sources of ignition. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours may be heavier than air and may collect in confined and low-lying areas. Material will float on water and can be re-ignited at the water's surface.

**Oxidizing properties**

- : None known.

**Explosion data: Sensitivity to mechanical impact / static discharge**

- : Not expected to be sensitive to mechanical impact. May be sensitive to static discharge.

**Suitable extinguishing media**

- : Dry chemical, foam, carbon dioxide and water fog. Do not use water jet, as this may spread burning material.

**Special fire-fighting procedures/equipment**

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

**Hazardous combustion products**

- : Carbon oxides; Nitrogen oxides (NOx); Aldehydes; Sulphur oxides; Other unidentified organic compounds.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

- Personal precautions** : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.
- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
- Prohibited materials** : Do not use combustible absorbents, such as sawdust.

**SECTION 7 - HANDLING AND STORAGE**

- Safe Handling procedures** : Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. Use proper bonding and grounding techniques when transferring liquid. Avoid contact with incompatible materials. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.
- Incompatible materials** : Acids; Strong oxidizing agents; Halogenated compounds .
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Exposure Limits

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
stoddard solvent	100 ppm	N/Av	500 ppm	N/Av
Petroleum naphtha	N/Av	N/Av	500ppm	N/Av
2-Ethylhexanol	N/Av	N/Av	N/Av	N/Av
Naphthalene	10 ppm (skin)	15 ppm (skin)	10 ppm	N/Av

- Ventilation and engineering measures** : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
- Respiratory protection** : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.
- Skin protection** : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.
- Eye / face protection** : Chemical splash goggles are recommended.
- Other protective equipment** : Wear resistant clothing and boots. An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, smoke or use cosmetics while working with this product. Remove and wash contaminated clothing before re-use. Wash with soap and water after handling.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

- Physical state** : Liquid. **Appearance** : red
- Odour** : Petroleum odour. **Odour threshold** : N/Av
- pH** : N/Av
- Boiling point** : > 160°C **Specific gravity** : 0.7919
- Melting/Freezing point** : N/Av **Coefficient of water/oil distribution** : N/Av
- Vapour pressure (mmHg @ 20° C / 68° F)** : N/Av **Solubility in water** : slight
- Vapour density (Air = 1)** : N/Av **Evaporation rate (n-Butyl acetate = 1)** : N/Av
- Volatile organic Compounds (VOC's)** : N/Av **Volatiles (% by weight)** : N/Av
- Flash point** : 60°C
- Flash point Method** : TCC **Auto-ignition temperature** : N/Av
- Lower flammable limit (% by vol.)** : N/Av **Upper flammable limit (% by vol.)** : N/Av
- Flame Projection Length** : N/Av **Flashback observed** : N/Av
- Absolute pressure of container** : N/Av **Viscosity** : N/Av
- General Information** : No additional information.

**Section 10: STABILITY AND REACTIVITY**

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed.
- Hazardous polymerization** : Hazardous polymerisation does not occur.
- Conditions to avoid** : Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas.
- Materials To Avoid And Incompatibility** : See Section 7 (Handling and Storage) for further details.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

- Target organs** : Eyes, skin, respiratory system, central nervous system, blood system, liver, brain and kidneys.
- Routes of exposure** : *Inhalation:* YES *Skin Absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES
- Irritancy** : Moderate skin irritant. Mild to moderate eye irritant.
- Toxicological data** : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<b>Ingredients</b>	<b>LC<sub>50</sub>(4hr)</b>	<b>LD<sub>50</sub></b>	
	<b>inh. rat</b>	<b>(Oral, rat)</b>	<b>(Rabbit, dermal)</b>
stoddard solvent	> 5500 mg/m <sup>3</sup>	> 5000 mg/kg	> 3000 mg/kg
Petroleum naphtha	N/Av	N/Av	> 2 mL/kg
2-Ethylhexanol	> 2000 ppm/6H	2052 mg/kg	1985 mg/kg
Naphthalene	N/Av	1780 mg/kg (rat); 533 mg/kg (mouse)	> 20,000 mg/kg

- Carcinogenic status** : Contains Naphthalene. Naphthalene is classified as carcinogenic by IARC (Group 2B) and NTP (Group 2 - Reasonably anticipated).
- Reproductive effects** : No information available. Not expected to cause reproductive effects.
- Teratogenicity** : No information available. Not expected to be a teratogen.
- Mutagenicity** : No information available. Not expected to be mutagenic in humans.
- Epidemiology** : None known or reported by the manufacturer.
- Sensitization to material** : May cause an allergic skin reaction (e.g. hives, rash) in some hypersensitive individuals. No data available to indicate product or components may be respiratory sensitizers.
- Synergistic materials** : None known or reported by the manufacturer.
- other important hazards** : CNS depression may result from extreme exposures.
- Conditions aggravated by overexposure** : Pre-existing skin, eye, respiratory or blood system disorders.

**SECTION 12 - ECOLOGICAL INFORMATION**

- Ecotoxicity** : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
- Mobility** : No data is available on the product itself.
- Persistence** : No data is available on the product itself.
- Bioaccumulation potential** : No data is available on the product itself.
- Other Adverse Environmental effects** : No data is available on the product itself.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

- Handling for Disposal** : Handle waste according to recommendations in Section 7. Do not cut, weld, drill or grind on or near this container. Empty containers retain residue (liquid and/or vapour) and can be dangerous.
- Methods of Disposal** : Dispose of in accordance with federal, provincial and local hazardous waste laws.

**SECTION 14: TRANSPORT INFORMATION**

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN1268	PETROLEUM PRODUCTS, N.O.S.	3	III	
<b>TDG Additional information</b>	Within Canada only, the 'Flammable Liquids General Exemption' may apply. Section 1.33 of the Regulations is an exemption permitting the transportation of this product in small means of containment as not regulated.				

**SECTION 15 - REGULATORY INFORMATION****Labelling:**

**WARNING!** Combustible liquid and vapour. Vapour may cause flash fire! Harmful if inhaled. Harmful if absorbed through the skin. Harmful or fatal if swallowed. May cause nausea, vomiting, headache and other central nervous system effects. Causes eye, skin and respiratory irritation. May be an aspiration hazard. Contains material which can cause damage to the blood system, the liver and the kidneys. Contains material which may cause cancer, based on animal data.

**PRECAUTIONS:** Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. Use proper bonding and grounding techniques when transferring liquid. Avoid contact with incompatible materials. Wash thoroughly after handling. Store in a cool, dry, well ventilated area, away from heat and ignition sources.

**FIRST AID:** If inhaled, move to fresh air. If breathing stopped, begin artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention. For skin contact, flush with water for at least 15 minutes, while removing contaminated clothing. Get medical attention. For eye contact, flush with running water for at least 15 minutes. If irritation persists, seek prompt medical attention. If ingested, do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.

Refer To Material Safety Data Sheet for further information.

**Canadian Information:**

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

**This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.**

**US Federal Information:**

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

**SECTION 16 - OTHER INFORMATION**


**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CNS: Central Nervous System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- LC: Lethal Concentration
- LD: Lethal Dose
- MSHA: Mine Safety and Health Administration
- N/Ap: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RTECS: Registry of Toxic Effects of Chemical Substances
- STEL: Short Term Exposure Limit
- TCC: Tagliabue Closed Cup
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values  
 TWA: Time Weighted Average  
 WHMIS: Workplace Hazardous Materials Identification System

**References**

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2010.
- 2. International Agency for Research on Cancer Monographs, searched 2010.
- 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2010 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.

<p><b>Prepared for:</b>                  Radiator Specialty Co. of Canada                  1711 Aimco Blvd.                  Mississauga, ON, Canada, L4W 1H7                  Telephone: 905-625-9117 (Mon. - Fri., 9 AM - 5 PM)                  Please direct all enquiries to Radiator Specialty.</p>	
<p><b>Prepared by:</b>                  ICC The Compliance Center Inc.  <a href="http://www.thecompliancecenter.com">http://www.thecompliancecenter.com</a></p>	

**DISCLAIMER OF LIABILITY**

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**MSDS Preparation Date (mm/dd/yyyy)**

: 07/29/2007

**MSDS Revision Date (mm/dd/yyyy)**

: 07/30/2010

**Revision No.**

: 2

**Revision Information**

- : Sections 2 and 3, switched.
- (M)SDS sections updated:
  - 2. HAZARDS IDENTIFICATION;
  - 3. COMPOSITION/INFORMATION ON INGREDIENTS;
  - 5. FIRE-FIGHTING MEASURES;
  - 8. EXPOSURE CONTROLS / PERSONAL PROTECTION;
  - 9. PHYSICAL AND CHEMICAL PROPERTIES;
  - 11. TOXICOLOGICAL INFORMATION;
  - 12. ECOLOGICAL INFORMATION;
  - 15. REGULATORY INFORMATION.

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