

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: ENGINE-BRITE AEROSOL

Product Code(s) : EB1C

Recommended use of the chemical and restrictions on use

: Cleaning automotive, marine and other engine parts.
No restrictions on use known.

Chemical family : Mixture of: diesel fuel; Petroleum solvent; Propellant; Surfactant; Glycol ether solvent

Name, address, and telephone number of the supplier:

Radiator Specialty Co., of Canada

3-3055 Dundas St West, Suite 50
Mississauga, ON, Canada
L5L 3R8

Supplier's Telephone # : (905) 625-9117 (Mon. - Fri., 8 am - 4 pm)

24 Hr. Emergency Tel # : No information available.

Name, address, and telephone number of the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Red coloured liquid, contained in pressurized aerosol can. Petroleum solvent odor.

Most important hazards:

Extremely flammable aerosol. May be ignited by open flames and sparks. Contents under pressure. Container may explode if heated.

Aspiration hazard. Can enter the lungs and cause damage. Irritating to skin. Irritating to respiratory system. Inhalation may cause central nervous system depression. Possible cancer hazard - contains material which may cause cancer. Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

Harmful to aquatic life with long lasting effects. Avoid release to the environment. See Section 12 for more environmental information.

This product is packaged and sold as a consumer product. The below WHMIS 2015 classification and labeling information is being provided for informational purposes.This material is classified as hazardous under Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).
Classification:

Flammable aerosol - Category 1

Gases under pressure

Aspiration toxicity - Category 1

Skin corrosion/irritation - Category 2

Carcinogenicity - Category 2

Specific target organ toxicity, single exposure - Category 3 (Respiratory irritation; Narcotic effects)

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

SAFETY DATA SHEET

Hazard statement(s)

Extremely flammable aerosol.
 Contains gas under pressure; may explode if heated.
 May be fatal if swallowed and enters airways.
 Causes skin irritation.
 May cause respiratory irritation.
 May cause drowsiness or dizziness.
 Suspected of causing cancer.

Precautionary statement(s)

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking.
 Do not spray on an open flame or other ignition source.
 Do not pierce or burn, even after use.
 Avoid breathing mist or vapours.
 Wash exposed skin thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/clothing and eye/face protection.
 IF exposed or concerned: Get medical advice/attention.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
 IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 Dispose of contents/container in accordance with local regulation.

Other hazards*Other hazards which do not result in classification:*

Toxic fumes may be released during a fire. Direct eye contact may cause slight or mild, transient irritation. Prolonged or repeated contact may cause drying, cracking and defatting of the skin. May cause gastrointestinal irritation. Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Fuels, diesel, no. 2	petroleum distillates	68476-34-6	80.0 - 100.0
<i>Note: The Diesel fuel component contains the following chemicals:</i>			
<i>Kerosene</i>	<i>Kerosine, petroleum</i>	8008-20-6	0 - 44.4
<i>Alkanes, C10-20-branched and linear</i>	<i>Renewable hydrocarbons (diesel type fraction)</i>	928771-01-1	0 - 4.5
<i>Naphthalene</i>	<i>Naphthalin Tar camphor</i>	91-20-3	0.01 - 0.5
Solvent naphtha (petroleum), heavy aromatic	Heavy Aromatic Naphtha	64742-94-5	3.0 - 7.0
<i>Note: The Solvent naphtha (petroleum), heavy aromatic component contains the following chemicals:</i>			
<i>tert-Butylbenzene</i>	<i>2-Methyl-2-phenylpropane (1,1-Dimethylethyl)benzene</i>	98-06-6	0 - 2.2
<i>Naphthalene</i>	<i>Naphthalin Tar camphor</i>	91-20-3	0 - 0.5
Carbon dioxide	Carbonic anhydride	124-38-9	1.0 - 5.0

SAFETY DATA SHEET

2-butoxyethanol	Ethylene glycol monobutyl ether butyl cellosolve Glycol Ether EB EGBE	111-76-2	0.5 - 1.5
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Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret.

This product is packaged and sold as a consumer product. The Hazardous Products Act (HPA) does not apply to consumer products [Hazardous Products Act Section 12(j)].

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Inhalation* : IF INHALED: Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing stops, provide artificial respiration. Call a POISON CENTER or doctor/physician if you feel unwell.
- Skin contact* : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
- Eye contact* : Rinse immediately with plenty of water, also under the eyelids. IF exposed or concerned: Get medical advice/attention.

Most important symptoms and effects, both acute and delayed

- : May be fatal if swallowed and enters airways. Aspiration hazard Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
- May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. Inhalation may cause headache, nausea and central nervous effects such as dizziness, coordination difficulties and unconsciousness.
- Causes skin irritation. Contact may cause redness, swelling and a painful sensation.
- Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.
- Direct eye contact may cause slight or mild, transient irritation. Direct eye contact may cause slight redness.
- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Prolonged or repeated contact may cause drying, cracking and defatting of the skin.
- Prolonged overexposure may cause slight liver and kidney effects, such as increased organ weights.

Indication of any immediate medical attention and special treatment needed

- : Immediate medical attention is required. Product may present an aspiration hazard, if ingested in large amounts, causing life-threatening lung injury.
- Provide general supportive measures and treat symptomatically.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable extinguishing media* : Carbon dioxide (CO₂); Dry chemical; Alcohol resistant foam
- Unsuitable extinguishing media* : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Extremely flammable aerosol. May be ignited by open flame. This product is contained under pressure, and could explode when exposed to heat and flame. Material will float on water and can be re-ignited at the water's surface. Toxic fumes, gases or vapours may evolve on burning.

Hazardous combustion products

- : Carbon oxides; Reactive hydrocarbons; Aldehydes; Sulfur oxides; Nitrogen oxides (NO_x); Polycyclic aromatic hydrocarbons; Other unidentified organic compounds.

SAFETY DATA SHEET

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Shield personnel to protect from venting or rupturing containers. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Wear appropriate protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

- : Prevent product from entering drains, sewers, waterways and soil. Avoid release to the environment.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Use only non-sparking tools. For spilled liquids: absorb spill with inert, non-combustible material such as sand, then place into suitable containers. Do not use combustible absorbents, such as sawdust. Pick up and transfer to properly labeled containers. Contaminated absorbent material may pose the same hazards as the spilled product. Contact the proper local authorities. .
Refer to Section 13 for disposal of contaminated material.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area. Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Keep away from incompatibles. Always replace cap after use. Wash thoroughly after handling.

Conditions for safe storage

- : Store in cool/well-ventilated place. Store locked up. 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. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F. Keep away from incompatibles.

Incompatible materials

- : Strong oxidizing agents; Strong acids; Strong alkalis; Halogenated compounds

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Fuels, diesel, no. 2	100 mg/m ³ (vapor and aerosol, as total hydrocarbons) (skin)	N/Av	N/Av	N/Av
Kerosene	200 mg/m ³ (skin)	N/Av	N/Av	N/Av

SAFETY DATA SHEET

Solvent naphtha (petroleum), heavy aromatic	N/Av	N/Av	500 ppm (2000 mg/m ³) (as petroleum distillates, naphtha)	N/Av
Alkanes, C10-20-branched and linear	N/Av	N/Av	N/Av	N/Av
Carbon dioxide	5000 ppm	30 000 ppm	5000 ppm (9000 mg/m ³)	N/Av
tert-Butylbenzene	N/Av	N/Av	N/Av	N/Av
2-butoxyethanol	20 ppm	N/Av	50 ppm (240 mg/m ³) (skin)	N/Av
Naphthalene	10 ppm (skin)	N/Av	10 ppm (50 mg/m ³)	N/Av

Exposure controls**Ventilation and engineering measures**

- : Use only outdoors or in a well-ventilated area. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

- : If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Refer to CSA Z94.3 or other appropriate standards. Advice should be sought from respiratory protection specialists.

Skin protection

- : Wear protective gloves/clothing. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Wear resistant clothing and boots. Depending on conditions of use, an impervious apron should be worn.

Eye / face protection

- : Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles; Safety glasses with side shields. A full face shield may also be necessary.

Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

- : Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Red colored liquid, contained in pressurized aerosol can.

Odour : Petroleum solvent odor.

Odour threshold : N/Av

pH : N/Av

Melting/Freezing point : N/Av

Initial boiling point and boiling range

: 165.56°C (330°F) (estimation)

Flash point : 57.8°C (136°F)

Flashpoint (Method) : Tag closed cup

Evaporation rate (BuAe = 1) : N/Av

Flammability (solid, gas) : Not applicable.

Lower flammable limit (% by vol.)

: 0.7% (estimation)

Upper flammable limit (% by vol.)

: 5% (estimation)

Oxidizing properties : None known.

Explosive properties : Aerosols are sensitive to mechanical impact. Closed containers are contained under pressure and may explode if exposed to excess heat for a prolonged period of time.

Vapour pressure : 2.67 hPa (estimated)

Vapour density : N/Av

SAFETY DATA SHEET**Relative density / Specific gravity**

: 0.84

Solubility in water : negligible**Other solubility(ies)** : N/Av**Partition coefficient: n-octanol/water or Coefficient of water/oil distribution**

: N/Av

Auto-ignition temperature : 260°C (500°F) (estimation)**Decomposition temperature** : N/Av**Viscosity** : N/Av**Volatiles (% by weight)** : 0.98%**Volatile organic Compounds (VOC's)**

: 14.69%

Absolute pressure of container

: N/Av

Flame projection length : None.**Flashback observed** : NO**Other physical/chemical comments**

: Heat of combustion: 39.8 kJ/g

SECTION 10. STABILITY AND REACTIVITY**Reactivity** : Not normally reactive.**Chemical stability** : Stable under normal conditions.**Possibility of hazardous reactions**

: Hazardous polymerization does not occur.

Conditions to avoid : Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F.**Incompatible materials** : Strong oxidizing agents; Strong acids; Strong alkalis; Halogenated compounds**Hazardous decomposition products**

: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure:****Routes of entry inhalation** : YES**Routes of entry skin & eye** : YES**Routes of entry Ingestion** : YES**Routes of exposure skin absorption**

: YES

Potential Health Effects:**Signs and symptoms of short-term (acute) exposure**

Sign and symptoms Inhalation : May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. May cause central nervous system effects. In extremely high concentrations, product may act as an asphyxiant and cause increased breathing and pulse rates, fatigue and unconsciousness.

Sign and symptoms ingestion : May be fatal if swallowed and enters airways. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Sign and symptoms skin : Causes skin irritation. Contact may cause redness, swelling and a painful sensation. May be absorbed through the skin. If product is sprayed directly on skin, symptoms of frostbite may be experienced including numbness, prickling and itching.

SAFETY DATA SHEET

- Sign and symptoms eyes* : Direct eye contact may cause slight or mild, transient irritation. Direct eye contact may cause slight redness.
- Potential Chronic Health Effects** : Prolonged or repeated skin exposure may cause redness, a burning sensation, drying and cracking of the skin (dermatitis). Prolonged overexposure may cause slight kidney effects, such as increased organ weight.
- Mutagenicity** : No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- Carcinogenicity** : This material is classified as hazardous under Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Carcinogenicity - Category 2. Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing. Contains: Fuels, diesel, no. 2; Naphthalene. Studies have shown that similar products to Fuels, diesel, no. 2 produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Naphthalene is classified as carcinogenic by IARC (Group 2B) and NTP (Group 2 - Reasonably anticipated).
- Reproductive effects & Teratogenicity** : This product is not expected to cause reproductive or developmental effects.
- Sensitization to material** : No data available to indicate product or components may be skin sensitizers. No data available to indicate product or components may be respiratory sensitizers.
- Specific target organ effects** : This material is classified as hazardous under Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Specific target organ toxicity, single exposure - Category 3. May cause respiratory irritation. May cause drowsiness or dizziness.
- According to the classification criteria of Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause specific target organ toxicity (STOT) through repeated exposures.
- Medical conditions aggravated by overexposure** : Pre-existing skin, eye, respiratory and central nervous system disorders.
- Synergistic materials** : None known or reported by the manufacturer.
- Toxicological data** : Not classified for acute toxicity based on available data. No data is available on the product itself. The calculated ATE values for this mixture are:
 ATE oral = 136,547 mg/kg
 ATE dermal = 24,744 mg/kg
 ATE inhalation (vapours) = 219.7 mg/L/4H
 ATE inhalation (mists) = 6.38 mg/L/4H
 See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀ (4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Fuels, diesel, no. 2	> 4.81, < 6 mg/L (aerosol)	7600 mg/kg	> 4300 mg/kg
<i>Note: The Diesel fuel component contains the following chemicals:</i>			
<i>Kerosene</i>	> 5.28 mg/L (No mortality)	> 5000 mg/kg	> 2000 mg/kg (No mortality)
<i>Alkanes, C10-20-branched and linear</i>	> 6317.3 ppm (vapour) (No mortality)	> 2000 mg/kg (No mortality)	> 2000 mg/kg (No mortality)
<i>Naphthalene</i>	N/Av	490 mg/kg (rat) 533 mg/kg (mouse)	> 20 000 mg/kg

SAFETY DATA SHEET

Solvent naphtha (petroleum), heavy aromatic	> 17.1 mg/L (mist)	> 6000 mg/kg	> 3160 mg/kg
<i>Note: The Solvent naphtha (petroleum), heavy aromatic component contains the following chemicals:</i>			
<i>tert-Butylbenzene</i>	<i>> 4.6 mg/L (vapour)</i>	<i>3045 mg/kg</i>	<i>> 2000 mg/kg (No mortality)</i>
<i>Naphthalene</i>	<i>N/Av</i>	<i>490 mg/kg (rat) 533 mg/kg (mouse)</i>	<i>> 20 000 mg/kg</i>
Carbon dioxide	200 000 ppm/2H (141 421)	N/Ap (gas)	N/Ap (gas)
2-butoxyethanol	450 ppm (2.175 mg/L) (vapour)	530 mg/kg	400 - 500 mg/kg

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Harmful to aquatic life with long lasting effects. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. The product contains the following substances which are hazardous for the environment: Fuels, diesel, no. 2; Kerosene; Solvent naphtha (petroleum), heavy aromatic; tert-Butylbenzene; Naphthalene.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Fuels, diesel, no. 2	68476-34-6	57 mg/L (Fathead minnow)	N/Av	None.
Kerosene	8008-20-6	20 mg/L (Rainbow trout) (Read-across)	N/Av	None.
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	3.6 mg/L (Rainbow trout)	N/Av	None.
Alkanes, C10-20-branched and linear	928771-01-1	> 1000 mg/L (Rainbow trout)	N/Av	None.
Carbon dioxide	124-38-9	N/Ap	N/Ap	N/Ap
tert-Butylbenzene	98-06-6	65 mg/L (Golden orfe)	N/Av	None.
2-butoxyethanol	111-76-2	1490 mg/L (Bluegill sunfish)	> 100 mg/L (Zebra fish)	None.
Naphthalene	91-20-3	0.96 mg/L (pink salmon)	0.12 mg/L/40 days	1

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Fuels, diesel, no. 2	68476-34-6	68 mg/L (Daphnia magna)	0.2 mg/L	None.
Kerosene	8008-20-6	1.4 mg/L (Daphnia magna) (Read-across)	0.48 mg/L (Read-across)	None.
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	1.1 mg/L (Daphnia magna)	N/Av	None.

SAFETY DATA SHEET

Alkanes, C10-20-branched and linear	928771-01-1	> 100 mg/L (Daphnia magna)	N/Av	None.
Carbon dioxide	124-38-9	N/Ap	N/Ap	N/Ap
tert-Butylbenzene	98-06-6	41 mg/L (Daphnia magna)	N/Av	None.
2-butoxyethanol	111-76-2	835 mg/L (Daphnia magna)	100 mg/L	None.
Naphthalene	91-20-3	3.4 mg/L (Daphnia magna)	0.22 - 0.6 mg/L	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Algae</u>		
		<u>EC50 / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Fuels, diesel, no. 2	68476-34-6	> 10 mg/L/72hr (Green algae)	1 mg/L/72hr	None.
Kerosene	8008-20-6	6.2 mg/L/96hr (Green algae) (Read-across)	0.4 mg/L/96hr (Read-across)	None.
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	7.2 mg/L/72hr (Green algae)	0.22 mg/L/72hr	None.
Alkanes, C10-20-branched and linear	928771-01-1	> 100 mg/L/72hr (Green algae)	N/Av	None.
Carbon dioxide	124-38-9	N/Ap	N/Ap	N/Ap
tert-Butylbenzene	98-06-6	N/Av	N/Av	None.
2-butoxyethanol	111-76-2	911 mg/L/72hr (Green algae)	286 mg/L/72hr	None.
Naphthalene	91-20-3	0.4 mg/L/72hr (Skeletonema costatum)	N/Av	1

Persistence and degradability

- : The product itself has not been tested.
The following ingredients are considered to be readily biodegradable: Alkanes, C10-20-branched and linear; 2-butoxyethanol.
Contains the following chemicals which are considered to be inherently biodegradable: Fuels, diesel, no. 2.
Contains the following chemicals which are not readily biodegradable: Kerosene; Solvent naphtha (petroleum), heavy aromatic; tert-Butylbenzene; Naphthalene.

Bioaccumulation potential

- : The product itself has not been tested. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Fuels, diesel, no. 2 (CAS 68476-34-6)	3.9 - 6	N/Av
Kerosene (CAS 8008-20-6)	3.3, > 6	70 - > 5000 (Fish) (calculated)
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	> 3, < 6.5	N/Av
Alkanes, C10-20-branched and linear (CAS 928771-01-1)	> 6.5	116.3 (QSAR)
tert-Butylbenzene (CAS 98-06-6)	4.11	291 (estimated)
2-butoxyethanol (CAS 111-76-2)	0.8	0.97
Naphthalene (CAS 91-20-3)	3.7	427 (Fathead minnow)

SAFETY DATA SHEET

Mobility in soil : The product itself has not been tested.

Other Adverse Environmental effects


: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8. This material and its container must be disposed of in a safe way. Empty containers retain residue and can be dangerous. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1950	AEROSOLS	2.1	none	
TDG Additional information	May be shipped as LIMITED QUANTITY when transported in containers no larger than 1.0 Litre, in packages not exceeding 30 kg gross mass. Under the TDG, refer to Section 1.17 for additional exemption requirements, if shipping under this exemption.				

Special precautions for user : Appropriate advice on safety must accompany the package. Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

SECTION 15 - REGULATORY INFORMATION

Canadian Information:

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

Canadian National Pollutant Release Inventory (NPRI): This product contains the following substances listed on the NPRI:
Solvent naphtha (petroleum), heavy aromatic (Part 5: Other groups and mixtures)
2-butoxyethanol (Part 1, Group A Substance; Part 5: Individual Substances)

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

US Federal Information:

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

SAFETY DATA SHEET

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	New Zealand IOC
Fuels, diesel, no. 2	68476-34-6	270-676-1	Present	Present	(9)-1700	KE-17287	Present	May be used as a single component chemical under an appropriate group standard.
Kerosene	8008-20-6	232-366-4	Present	Present	(9)-1702	KE-21778	Present	May be used as a single component chemical under an appropriate group standard.
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	265-198-5	Present	Present	(9)-2578	KE-31656	Present	May be used as a single component chemical under an appropriate group standard.
Alkanes, C10-20-branched and linear	928771-01-1	N/Av	Present	Not specifically listed.	Not specifically listed.	Not specifically listed.	Not specifically listed.	Not specifically listed.
Carbon dioxide	124-38-9	204-696-9	Present	Present	(1)-310; (1)-169	KE-04683	Present	HSR001018
tert-Butylbenzene	98-06-6	202-632-4	Present	Present	(3)-22; (3)-11	Not specifically listed.	Present	HSR003757
2-butoxyethanol	111-76-2	203-905-0	Present	Present	(7)-97; (2)-407	KE-04134	Present	HSR001154
Naphthalene	91-20-3	202-049-5	Present	Present	(4)-311	KE-25545	Present	HSR001287

SECTION 16. OTHER INFORMATION**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- AICS: Australian Inventory of Chemical Substances
- CAS: Chemical Abstract Services
- CSA: Canadian Standards Association
- EC50: Effective Concentration 50%
- EINECS: European Inventory of Existing Commercial chemical Substances
- ENCS: Existing and New Chemical Substances
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- IBC: Intermediate Bulk Container
- IECSC: Inventory of Existing Chemical Substances
- IMDG: International Maritime Dangerous Goods
- IOC: Inventory of Chemicals
- KECI: Korean Existing Chemicals Inventory
- KECL: Korean Existing Chemicals List
- LC: Lethal Concentration
- LD: Lethal Dose
- N/Av: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- NOEC: No observable effect concentration
- NTP: National Toxicology Program
- OECD: Organisation for Economic Co-operation and Development
- OSHA: Occupational Safety and Health Administration

SAFETY DATA SHEET

PEL: Permissible exposure limit
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 RTECS: Registry of Toxic Effects of Chemical Substances
 SDS: Safety Data Sheet
 STEL: Short Term Exposure Limit
 TDG: Canadian Transportation of Dangerous Goods Act & Regulations
 TLV: Threshold Limit Values
 TSCA: Toxic Substance Control Act
 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 2018.
 - 2. International Agency for Research on Cancer Monographs, searched 2018.
 - 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
 - 4. Material Safety Data Sheets from manufacturer.
 - 5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

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: 01/21/2019

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p><u>Prepared for:</u> Radiator Specialty Co. of Canada 3-3055 Dundas St West, Suite 50 Mississauga, ON, Canada, L5L 3R8 Telephone: 905-625-9117 (Mon. - Fri., 8 AM - 4 PM) Please direct all enquiries to Radiator Specialty.</p>	
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