



MATERIAL SAFETY DATA SHEET

ENERBURN® EC5931A

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name EnerBurn® EC5931A
Product Code -
Other Names -
Product Use Diesel Combustion Improver
Supplier Name EnerGreen Technologies
42 Stirgess Avenue
Address Curl Curl NSW 2096
Telephone Number 02 9938 6223
Emergency Telephone 0412 518 845

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Classified as hazardous according to the criteria of Safe Work Australia.

Hazards Xn - Harmful

Risk Phrases R65 - Harmful: May cause lung damage if swallowed.

Safety Phrases S2 - Keep out of reach of children.
S23 - Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
S24 - Avoid contact with skin.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53 - Avoid exposure-obtain special instructions before use.
S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion by weight
Light aromatic naphta	64742-95-6	~90%
Organoferrometalic complex	Proprietary	1-10%
Other ingredients deemed not to be hazardous	Proprietary	To 100%

4. FIRST AID MEASURES

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.

Ingestion Never give anything by mouth to an unconscious person.

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	If swallowed, do not induce vomiting. Washout mouth and give a glass of water. Small amounts of liquid aspirated into the respiratory system during ingestion or vomiting may lead to aspiration into the lungs with a possibility of chemical pneumonia or lung damage. Seek immediate medical attention.
Skin	Remove contaminated clothing and wash affected areas with soap and water. Seek medical attention if symptoms persist. Launder contaminated clothing before reuse.
Eyes	In case of eye contact, check for and remove any contact lenses. Immediately irrigate eyes with plenty of running water for at least 15 minutes, keeping eyelids open. Seek medical attention.

5. FIRE FIGHTING MEASURES

	For major fires call the Fire Brigade. Ensure that an escape path is available from any fire.
Suitable Extinguishing Media	Alcohol foam, carbon dioxide, foam and dry powder. For large fires use water spray or fog. Do not use water unless flooding amounts are available.
Hazardous Combustion Products	Oxides of carbon.
Firefighting Equipment	Wear ASCC approved self-contained breathing apparatus and full protective clothing.
Unusual Fire or Explosion Hazards	Combustible liquid. May form combustible mixtures at or above flash point. Empty containers may contact product residue. Do not pressurize, cut, heat, weld or expose containers to flame or other sources of ignition.
Hazchem Code	Water mist may be used to cool closed containers. 3[Y]

6. ACCIDENTAL RELEASE MEASURES

Spills	Wear full protective equipment. Keep spectators away. Ventilate spill area. Remove sources of ignition. Stop any leaks if it is safe to do so. Dike and contain the spill with inert material (sand, earth etc.) and transfer to labeled containers for proper disposal. Clean contaminated surfaces with water or aqueous cleaning agents. Keep spill out of all sewers and open bodies of water.
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7. HANDLING AND STORAGE

Handling	Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Use with adequate ventilation.
Storage	Store in a cool, dry, ventilated area away from heat, sources of ignition and oxidizers. Keep containers tightly closed when not in

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use and when empty. Protect from damage. Use proper grounding procedures. Empty containers may contact product residue. Do not pressurize, cut, heat, weld or expose containers to flame or other sources of ignition. Have appropriate fire extinguishers available in and near the storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards (Safe Work Australia)	Oil mist: TWA: 5 ppm / - mg/m ³ STEL: - ppm / - mg/ m ³ Ferrocene: TWA: 10 ppm / - mg/m ³ STEL: - ppm / - mg/ m ³
Engineering Controls	Local exhaust ventilation is recommended when vapours can be released in excess of established airborne exposure limits.
Respiratory Protection	Use an ASCC approved respirator if the ventilation is not sufficient. See Australian Standards AS/NZS 1715 and 1716 for more information.
Eye Protection	Chemical splash goggles.
Skin Protection	Nitrile or polyvinyl alcohol gloves and protective clothing.
Hygienic Practices	Food, beverages and tobacco products should not be stored or consumed where this material is in use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Amber liquid
Odour	Hydrocarbon odour
Solubility in Water	Insoluble
Boiling Point	153°C
Vapour Pressur	3mm Hg @ 20°C
Vapour Density	No information available
Specific Gravity (Water=1)	0.87-0.91 @ 15°C
Flash Point (PMCC)	43.3°C
Flammable Limit – Lower	1%
Flammable Limit – Upper	No information available
Auto-ignition Temperature	>257°C

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Incompatible Materials	Strong oxidizers (chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate). Contact with oxidizers may generate heat, fires, explosions and toxic vapour.
Hazardous Decomposition	Oxides of carbon.



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Products
Hazardous Polymerization Will not occur.
Conditions to Avoid Heat, sources of ignition and static discharges.

11. TOXICOLOGICAL INFORMATION

Toxicity
Light aromatic naphta:
Oral LD₅₀ (rat) = 3000 mg/kg
Skin LD₅₀ (rabbit) > 3000 mg/kg
Ferrocene:
Oral LD₅₀ (rat) = 3120 mg/kg
Skin LD₅₀ (rabbit) = 4640 mg/kg
Intraperitoneal LD₅₀ (rat) = 525 mg/kg
Subcutaneous LD₅₀ (rat) = 20600 mg/kg

Routes of Exposure Inhalation, ingestion, eye and skin
Acute Health Effects Inhalation: May cause irritation of the respiratory tract.
Inhalation of high concentrations of organic solvent can cause nausea, dizziness, vomiting, stupor and unconsciousness.
Ingestion: May cause nausea and vomiting, chemical pneumonitis if aspirated into lungs following ingestion. May cause liver damage and central nervous system depression.
Eye: May cause mild irritation.
Skin: May cause skin irritation.

Chronic Health Effects Frequent or prolonged skin contact may defat and dry the skin, leading to discomfort and dermatitis.
Existing Conditions Aggravated by Exposure Skin contact may aggravate an existing dermatitis condition.
Carcinogenicity No (IARC, NTP, ACGIH).

12. ECOLOGICAL INFORMATION

Ecotoxicity No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods and containers Dispose according to applicable local and state government regulations.
Special precautions for landfill or incineration Please consult your state Land Waste Management Authority for more information

14. TRANSPORT INFORMATION

Classified as a dangerous good according to the Australian Code for the Transport of



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Dangerous goods by road or rail.

UN Number 1268
Proper Shipping Name PETROLEUM DISTILLATES N.O.S. (contains aromatic hydrocarbons)
Dangerous Goods Class 3
Hazchem Code 3[Y]
Packing Group III
Special Precautions Not applicable

15. REGULATORY INFORMATION

Light aromatic naphta and ferrocene are listed in the Australian Inventory of Chemical Substances (AICS).

Poisons Schedule: 5

National Regulations USA:

This additive when used as prescribed will not cause the diesel fuel to exceed the sulfur specifications in Table F94-2 in 40 CFR 79.55.

16. OTHER INFORMATION

Last Revision of MSDS Rev 1.0 (26/11/2009)
Prepared by MSDS.COM.AU Pty Ltd www.msds.com.au
Abbreviations Used IARC: International Agency for Research on Cancer
ASCC: Australian Safety and Compensation Council
NTP: National Toxicology Program (U.S.)
OSHA: Occupational Safety and Health Administration (U.S.)
STEL: Short term exposure limit
TWA: Time weighted average

Emergency Contacts

EnerGreen Technologies 02 9938 6223
EnerGreen Technologies – Emergency Number 0412 518 845
Police and Fire Brigade 000
Poisons Information Centre 13 11 26

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Please read instructions / label before using product.