SAFETY DATA SHEET

1. Product and Company Identification

Company Name: Sierra Aust Pty Ltd
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Emergency Contact: Sierra **(07) 3216 5099** Poisons Information Centre **13 11 26**

Product Name: **Fuel Fix** (& Fuel Stabiliser)
Product Code: 9263 to 9277
Intended Use: Combustion Fuel Additive
Chemical Nature: Mixture

2. Hazards Identification

Hazardous Chemical according to classification by Safe Work Australia
Non Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail

Signal Word
Warning

Hazard Classification
Eye Irritation - Category 2
Acute Hazard to the Aquatic Environment - Category 1
Chronic Hazard to the Aquatic Environment - Category 3

Hazard Statement
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Prevention Precautionary Statements
P102 Keep out of reach of children.
P103 Read label before use.
P264 Wash hands, face and all exposed skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements
P101 If medical advice is needed, have product container or label at hand.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

Storage: PP403 + P235 Store in a well ventilated place. Keep cool.

Disposal: P501 Dispose of contents/container in accordance with local regulations.

3. Composition / Information on Ingredients

Ingredients Names and Proportions

Chemical Entity	Cas Number	Proportion(%)
2-Butoxyethanol	111-76-2	>40

Other ingredients not considered harmful

4. First aid Measures

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye contact: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink.
Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

5. Fire Fighting Measures

Suitable Extinguishing Media: Foam, water spray or fog, dry chemical powder or carbon dioxide. Do not use water in a jet

Specific Hazards arising from the Chemical: Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface of water. Vapour is heavier than air, can spread along ground and distant ignition is possible.

Special protective equipment for fire fighters: Wear full protective clothing and self contained breathing apparatus. Hazchem code 3Y

6. Accidental Release Measures

Personal Precautions: Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Environmental Precautions: Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers.

Methods of cleanup: For small spils, transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely. For larger spills (>1drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste.

7. Handling and Storage

Precautions for safe handling: Avoid breathing vapours. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas.

Conditions for safe storage: Store in a well ventilated area, away from sunlight, ignition sources and other sources of heat.

8. Exposure Controls and Personal Protection

Exposure Control Measures: In the absence of data from National Occupational Health & Safety Commission (NOHSC) Worksafe Australia use- Mineral Spirits 150-200 HSPA: 350mg/m^3 TWA (8hr)

Biological Monitoring: No biological limit allocated.

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use.

Individual Protection Measures:

Eye and face protection: Wear safety goggles.

Skin protection: Use solvent resistant gloves, nitrile for longer term protection of PVC and neoprene for incidental splashes.

Respiratory protection: If work practices do not maintain airborne levels below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point >65ºC). respirators should comply with AS1716 or an equivalent approved by a state/territory authority.

Thermal Hazards: Not applicable.

9. Physical and Chemical Properties

Appearance:	Clear Dark Green Liquid	Density (g/ml@15ºC):	Typical 0.85
Odour:	Aromatic	Solubility (kg/m^3):	miscible with water
Initial Boil point range:	n/a	Auto ignition temp (ºC)	n/a
Flash point:	>92ºC (Abel)	Vapour Density:	n/a
Flammability:	not flammable	(air=1@15ºC)	
Vapour pressure: (kPa@20ºC)	n/a	Upper/lower flammability: or explosive limits (%)	n/a

10. Stability and Reactivity

Reactivity: Stable under normal conditions of use
Chemical Stability: Stable under normal conditions of use
Possible Hazardous reactions: Stable under normal conditions of use
Conditions to avoid: Flames and other ignition sources
Incompatible materials: Strong oxidizing agents.
Hazardous Decomposition products: Thermal decomposition is highly dependent on conditions.

11. Toxicological Information

Acute toxicity:	LD50 Oral - Rat - male - 7,291 mg/kg (OECD Test Guideline 401) LD50 Dermal - Rabbit - male - 2,764 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation:	Skin – Rabbit Result: Mild skin irritation - 1 h (OECD Test Guideline 404)
Serious eye damage/irritation:	Mild irritant.
Respiratory or skin sensitisation:	Test (GPMT) - Guinea pig Result: Does not cause skin sensitisation. (OECD Test Guideline 406)
Germ cell mutagenicity:	Ames test S. typhimurium Result: negative OECD Test Guideline 477 Drosophila melanogaster - male and female Result: negative
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity:	No data available
Specific Target Organ Toxicity (STOT) – single exposure:	No data available
Specific Target Organ Toxicity (STOT) – repeated exposure:	No data available

Aspiration hazard:	No data available

12. Ecological Information

Ecotoxicity

Acute toxicity:

Fish –	static test LC50 - Lepomis macrochirus - 1,300 mg/l - 96 h (OECD Test Guideline 203)
Aquatic invertebrate –	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (Directive 67/548/EEC, Annex V, C.2.)
Algae –	static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) – >100 mg/l - 96 h (OECD Test Guideline 201)
Microorganisms –	LC50 - Pseudomonas putida - 1,170 mg/l - 16 h

Persistence and degradability

aerobic - Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B)

Bioaccumulative potential

Does not bioaccumulate.

Mobility in soil

No data available

13 Disposal Considerations

Ensure waste disposal conforms to local waste disposal regulations.

14. Transport Information

Not Classified as a Dangerous Goods

15. Regulatory Information

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	5
Australian Inventory of Chemical Substances (AICS):	Listed

16. Other Information

This SDS contains only safety related information. For other information see product literature.

Every endeavor has been made to ensure that the information contained in this publication is reliable and offered in good faith. It is meant to describe the safety requirements of our products and should not be construed as guaranteeing specific properties. Customers are encouraged to conduct their own tests as end user suitability of the product for particular uses is beyond our control. The information is not intended as an inducement to bargain and no warranty expressed or implied is made as to its accuracy, reliability or completeness. Sierra (Aust) Pty Ltd accepts no liability for loss, injury or damage arising from reliance upon the information contained in this data sheet except in conjunction with the proper use of the product to which it refers. Due care should be taken that the use and disposal of this product is in compliance with appropriate Federal, State and Local Government regulations.