



MATERIAL SAFETY DATA SHEET

HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Product name: Fuel Fix
Supplier: Sierra (Aust) Pty Ltd
ABN: 51 101 066 022
Street Address: 17 Delta Street
GEEBUNG
Queensland, Australia 4034
Telephone: +617 3216 5099
Facsimile: +617 3216 5199

2. HAZARDS IDENTIFICATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xi Irritant

R-phrases(s)

R41 Risk of serious damage to eyes.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

Class: 9 Miscellaneous Dangerous Goods

Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

Poisons Schedule (Aust)/Toxic Substance (NZ): N/A - Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended use: Fuel Treatment
Appearance: Clear blue liquid.

CHEMICAL ENTITY	CAS NO.	PROPORTION
Alcohol ethoxylated	68131-39-5	30 – 60%
Other ingredients not considered harmful		to 100%

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS)

4. FIRST AID MEASURES

Ingestion: Rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.

Eye contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

Skin contact: Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure - avoid becoming a casualty, Keep at rest until fully recovered. Seek medical advice if effects persist.

Notes to physician: Treat symptomatically. Can cause corneal burns.

5. FIRE-FIGHTING MEASURES

Specific hazards: Combustible liquid.

Fire fighting further advice: Combustible liquid. On burning will emit fumes including carbon monoxide and carbon dioxide. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion

Extinguishing media: Water fog (or if unavailable fine water spray), foam, carbon dioxide, dry chemical powder,

6. ACCIDENTAL RELEASE MEASURES

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and inhalation of mist. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled drums for disposal. If contamination of sewers or waterways has occurred advise the local emergency services.

7. HANDLING AND STORAGE

Storage: Store away from oxidising agents. Keep containers closed at all times - check regularly for leaks. Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements. Can be stored in mild steel or stainless steel. Aluminium or alloys containing aluminium, copper, copper rich alloys, neoprene or natural rubbers are not recommended for storage or contact (eg piping or gaskets). Store away from oxidising agents. Keep containers closed at all times - check regularly for leaks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

No value assigned for this specific material by the National Occupational Health and Safety Commission (Worksafe Australia).

Engineering measures: Use in well ventilated area. Keep container closed when not in use. If inhalation risk exists use with local exhaust ventilation or while wearing organic vapour respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected.

Personal protection equipment: OVERALLS, SAFETY SHOES. CHEMICAL GOGGLES, GLOVES (Short) Avoid skin and eye contact and inhalation of mist. Wear overalls, chemical goggles and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protection equipment before using or re-using. If inhalation risk exists wear combined organic vapour/particulate respirator meeting the requirements of AS/NZ 1715 and AS/NZ 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Clear to mildly turbid blue liquid.

Solubility: Dispersable in water, soluble in hydrocarbons

Specific Gravity (20 C)	0.95
Pour Point (C)	< 0
Rel. vapour Density (air=1)	N Av
Boiling Point (C)	N Av
Vapour Pressure (30 C)	N Av
Decomp. Point (C)	N Av
Flash Point (C)	176
Sublimation Point	N App
Flammability Limits (%)	N Av
pH (1% aq. soln.)	6.0-8.0
Autoignition Temp (C)	N Av
Viscosity	Approx 18 cPs
Evaporation Rate (n-Butyl acetate=1) :	N Av
Solubility in water (g/L)	N Av

(Typical values only)

N Av = Not available N App. = Not applicable

10. STABILITY AND REACTIVITY

Stability: Incompatible with oxidising agents. Attacks some types of rubber, plastics and coatings.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label- Symptoms that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Ingestion: Swallowing may result in irritation of the gastrointestinal tract, nausea, vomiting, diarrhoea, headache, dizziness, drowsiness, central nervous system depression and loss of consciousness.

Eye contact: A severe eye irritant. Contamination of eyes can result in permanent injury. Corrosive to eyes; contact can cause corneal burns.

Skin contact: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis. Can be absorbed through the skin. Effects can include those listed under 'Ingestion'.

Inhalation: Not expected to cause respiratory irritation unless present as an aerosol. Inhalation of high concentrations of mist may result in respiratory irritation.

Long Term Effects:

No information available for product, however available evidence on the constituents suggests that repeated or prolonged exposure to this chemical can result in blood changes (red blood cell haemolysis). These effects were observed only at very high doses in rats. There are no reports of adverse effects in humans from use of this product.

Acute toxicity / Chronic toxicity

Oral LD50 (rat): >8 g/kg Dermal LD50 (rat): 4g/kg The constituents of this chemical were not mutagenic in a range of in vivo and in vitro tests. The constituents of this chemical administered orally (rat and mouse) or dermally (rabbit) showed no teratogenic, foetotoxic or embryotoxic effects at doses up to 1,000 mg/kg/day. Non-sensitiser in guinea pig maximisation test (25% injection induction, 100% application induction and application challenge). No evidence of neurotoxicity, or other systemic toxicity, was reported when rats were dosed dermally with 10 or 30 percent aqueous solution or with the undiluted material at doses up to 2 g/kg/day, 5 day/week for 13 weeks.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways. Identified as a marine pollutant by the International Maritime Organisation.

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority. Empty containers must be decontaminated and destroyed. Dispose of material through a licensed waste contractor.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

UN-No: 3082
Class: 9 Miscellaneous Dangerous Goods
Hazchem code: 2X Hazchem Code
Packing group: Packing Group 3
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains: ALCOHOL ETHOXYLATE)

Segregation Dangerous Goods:

Not to be loaded with explosives (Class 1), oxidising agents (Class 5.1) or organic peroxides (Class 5.2), however exemptions may apply.

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN-No: 3082
Class: 9 Miscellaneous Dangerous Goods
Packing group: Packing Group 3
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains: ALCOHOL ETHOXYLATE)

This material is classified as a Marine Pollutant according to the International Maritime Dangerous Goods Code.

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN-No: 3082
Class: 9 Miscellaneous Dangerous Goods
Packing group: Packing Group 3
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains: ALCOHOL ETHOXYLATE)

15. REGULATORY INFORMATION

Hazardous according to criteria of Worksafe Australia.

Hazard Category

Xi Irritant

R-phrase(s)

R41 Risk of serious damage to eyes.

S-phrase(s)

S24/25 Avoid contact with skin and eyes.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Poisons Schedule (Aust)/Toxic Substance (NZ): Not Applicable

16. OTHER INFORMATION

Contact:

Within Australia:

Telephone

Facsimile

Outside Australia:

Telephone

Facsimile

Reason(s) For Issue: First Issue

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since SIERRA (AUST) Pty Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is available upon request.

15th February 2006