

# SAFETY DATA SHEET

Fuel Doctor

## Section 1. Identification

<b>GHS product identifier</b>	Fuel Doctor
<b>Product code</b>	461929-AU22
<b>SDS no.</b>	461929
<b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b>	
<b>Use of the substance/ mixture</b>	Additive For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer Supplier</b>	Castrol Australia Pty Ltd Level 17, 717 Bourke Street Docklands, Victoria 3008 ABN 87 008 459 407 www.castrol.com.au  Tel: +61 (03) 9268 4111
<b>EMERGENCY TELEPHONE NUMBER</b>	+61 2801 44558 (or 1800 14 14 74 within Australia)
<b>OTHER PRODUCT INFORMATION</b>	Technical Advice Helpline Number: 1300 557 998

## Section 2. Hazard(s) identification

**Classification of the substance or mixture** SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

### GHS label elements

#### Hazard pictograms



#### Signal word

WARNING

#### Hazard statements

H319 - Causes serious eye irritation.

#### Precautionary statements

##### General

P102 - Keep out of reach of children.  
P101 - If medical advice is needed, have product container or label at hand.

##### Prevention

P280 - Wear eye or face protection.  
P264 - Wash hands thoroughly after handling.

##### Response

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 attention.

##### Storage

Not applicable.

##### Disposal

Not applicable.

#### Supplemental label elements

Not applicable.

#### Other hazards which do not result in classification

None known.

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## Section 3. Composition and ingredient information

**Substance/mixture** Mixture

Ethoxylated alcohol. Proprietary performance additives.

<b>Ingredient name</b>	<b>% (w/w)</b>	<b>CAS number</b>
2-(2-butoxyethoxy)ethanol	≥30 - ≤60	112-34-5
Isotridecanol, ethoxylated	≥10 - ≤30	69011-36-5
Alcohols, C12-14, ethoxylated	≥10 - ≤30	68439-50-9

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Skin contact</b>	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.
<b>Specific treatments</b>	No specific treatment.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## Section 5. Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
<b>Unsuitable extinguishing media</b>	Do not use water jet.

### Specific hazards arising from the chemical

<b>Hazardous thermal decomposition products</b>	In a fire or if heated, a pressure increase will occur and the container may burst. Combustion products may include the following: carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide)
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### Special protective actions for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

### Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.
<b>For emergency responders</b>	Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
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### Methods and material for containment and cleaning up

<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

<b>Protective measures</b>	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
<b>Advice on general occupational hygiene</b>	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

<b>Conditions for safe storage, including any incompatibilities</b>	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
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## Section 8. Exposure controls and personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
2-(2-butoxyethoxy)ethanol	<b>ACGIH TLV (United States).</b> TWA: 10 ppm 8 hours. Issued/Revised: 3/2012 Form: Inhalable fraction and vapor

#### **Appropriate engineering controls**

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

#### **Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### **Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

Safety glasses with side shields.

#### **Skin protection**

##### **Hand protection**

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

##### **Skin protection**

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

##### **Other skin protection**

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls and personal protection

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

### Refer to standards:

Respiratory protection:AS/NZS 1715 and AS/NZS 1716  
Gloves:AS/NZS 2161.1  
Eye protection:AS/NZS 1336 and AS/NZS 1337

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

#### Physical state

Liquid.

#### Colour

Green.

#### Odour

Not available.

#### Odour threshold

Not available.

#### pH

6 to 7.5

#### Melting point

Not available.

#### Boiling point, initial boiling point, and boiling range

>230°C (>446°F)

#### Flash point

Closed cup: >100°C (>212°F)

#### Evaporation rate

Not available.

Not applicable. Based on - Physical state

#### Lower and upper explosion limit/flammability limit

Lower: 0.6%

Upper: 7%

#### Vapour pressure

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
2-(2-butoxyethoxy) ethanol	0.02	0.0027				

#### Relative vapour density

Not available.

#### Relative density

Not available.

#### Density

<1000 kg/m<sup>3</sup> (<1 g/cm<sup>3</sup>) at 20°C

#### Solubility

Dispersible in water.

#### Partition coefficient: n-octanol/water

Not applicable.

#### Auto-ignition temperature

Ingredient name	°C	°F	Method
2-(2-butoxyethoxy)ethanol	210	410	DIN 51794
Isotridecanol, ethoxylated	250	482	ASTM E 659-78

#### Decomposition temperature

Not available.

#### Viscosity

Not available.

#### Particle characteristics

#### Median particle size

Not applicable.

## Section 10. Stability and reactivity

<b>Reactivity</b>	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
<b>Chemical stability</b>	The product is stable.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
<b>Conditions to avoid</b>	Avoid excessive heat.
<b>Incompatible materials</b>	Non-reactive or compatible with the following materials: oxidising materials.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

<b>Information on likely routes of exposure</b>	Routes of entry anticipated: Dermal, Inhalation.
<b>Potential acute health effects</b>	
<b>Eye contact</b>	Causes serious eye irritation.
<b>Inhalation</b>	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.
<b>Skin contact</b>	No known significant effects or critical hazards.
<b>Ingestion</b>	No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
<b>Skin contact</b>	No specific data.
<b>Ingestion</b>	No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Inhalation</b>	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
<b>Skin contact</b>	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Ingestion</b>	Ingestion of large quantities may cause nausea and diarrhoea.
<b>General</b>	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	No known significant effects or critical hazards.
<b>Mutagenicity</b>	No known significant effects or critical hazards.
<b>Teratogenicity</b>	No known significant effects or critical hazards.
<b>Developmental effects</b>	No known significant effects or critical hazards.
<b>Fertility effects</b>	No known significant effects or critical hazards.

## Section 12. Ecological information

### Persistence and degradability

The biodegradability of this material has not been determined.

### Bioaccumulative potential

Not available.

### Mobility in soil

Soil/water partition coefficient ( $K_{oc}$ )

Not available.

Mobility

Dispersible in water.

### Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Special Precautions for Landfill or Incineration

No additional special precautions identified.

## Section 14. Transport information

	ADG	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

**Special precautions for user** Not available.

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## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

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Consumer products - This material is a scheduled poison and must be stored, maintained and used in accordance with the relevant regulations.

Industrial Products - Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSHC National Code of Practice for labelling of workplace substances.

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### International lists

#### National inventory

##### REACH Status

For the REACH status of this product please consult your company contact, as identified in Section 1.

##### Australia inventory (AIC)

All components are listed or exempted.

##### Canada inventory

All components are listed or exempted.

##### China inventory (IECSC)

All components are listed or exempted.

##### Japan inventory (CSCL)

At least one component is not listed.

##### Korea inventory (KECI)

All components are listed or exempted.

##### Philippines inventory (PICCS)

All components are listed or exempted.

##### Taiwan Chemical Substances Inventory (TCSI)

All components are listed or exempted.

##### United States inventory (TSCA 8b)

Not determined.

## Section 16. Any other relevant information

### History

**Date of printing** 6/7/2022

**Date of issue/Date of revision** 6/7/2022

**Date of previous issue** 6/7/2022

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**Prepared by** Product Stewardship

### Key to abbreviations

ADG = Australian Dangerous Goods

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

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## Section 16. Any other relevant information

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NOHSC = National Occupational Health and Safety Commission  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
STEL = Short term exposure limit  
SUSMP = Standard Uniform Schedule of Medicine and Poisons  
UN = United Nations  
TWA = Time weighted average  
VOC = Volatile Organic Compound  
SADT = Self-Accelerating Decomposition Temperature  
Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

### Procedure used to derive the classification

Classification	Justification
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A	Expert judgment

✔ Indicates information that has changed from previously issued version.

### Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

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