

MATERIAL SAFETY DATA SHEET

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HAZARDOUS ACCORDING TO CRITERIA 'WORKSAFE AUSTRALIA'

COMPANY DETAILS

COST EFFECTIVE MAINTENANCE

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IDENTIFICIATION

Product Name:	Combustion Catalyst FTC-1
Manufacturers Code:	001
UN Number:	1993
Dangerous Goods Class:	3
Hazchem Code:	3Y
Poisons Schedule Number:	S 5

Use

For addition to liquid petroleum fuels at a ratio of 1:1600 to enhance combustion, reduce carbonaceous deposits and some noxious emissions. Has biocidal qualities.

Physical Description/Properties

<u>Physical State:</u>	Liquid
Form/Colour	Dark green liquid
Odour:	Aromatic hydrocarbon odour
Boiling Point (°C);	140 - 210
Vapour Pressure (Solvent 150 component)	0.24 kPa @ 38°C
Vapour Density (1013 kPa/air=1)	> 1 (primary solvent component)
Per cent Volatiles (by volume)	98%
Density @ 15°C;	0.89
Flash Point (Closed Cup) (°C);	44
Flammability Limits (%);	LEL 0.9 UEL 6.0
Solubility in water (% mass);	< 0.1

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Ingredients

Chemical entity	CAS No.	Proportion
Solvent 150	64 742-94-5	(High > 60%)
Solvesso 100	64 742-95-6	(Low < 10%)
Butanol	71-36-3	(Low < 10%)
Phenol 2,4,6 Trinitro	88-89-1	(Low < 10%)
Phenol 2,4,6 Trinitro - iron (2+)Salt	14866-25-2	(Low < 10%)

HEALTH HAZARD INFORMATION

Health Effects of Overexposure

Ingestion: May cause irritation of the mouth, throat and digestive tract, may cause nausea and vomiting. May cause drowsiness. Chronic exposure may cause damage to the liver and to the kidneys.

Toxicology: Scientific testing undertaken on the major component, namely the solvent carrier, has shown no significant toxicity to reproductive organs.

Eye: Avoid splashing may act as irritant.

Skin: Irritant. Avoid prolonged or repeated contact as may cause dermatitis.

Inhaled: Vapour is irritant to mucous membranes and respiratory tract. Vapours may cause drowsiness, headache and prolonged high concentrations may cause loss of consciousness. Aspiration of liquid into the lungs can cause severe (even fatal) pneumonitis.

First Aid

Ingestion: Do not induce vomiting because of the risk of aspiration. Give 250 ml of milk to drink. "Liquid paraffin B.P." may slow gastric absorption. Keep at rest. Get prompt medical attention.

Eye: Irrigate the eye with copious quantities of water for at least 10 minutes or until irritation subsides.

Skin: Wash skin thoroughly with soap and water as soon as possible following contact. Remove grossly contaminated clothing and launder before reuse.

Inhaled: Move to fresh air, keep patient warm and at rest. If loss of consciousness give oxygen and if breathing stops give artificial respiration. If any suspicion of aspiration into lungs seek medical advice.

Advice to Doctor Because of risk of aspiration, gastric lavage should only be taken after endotracheal intubation.

PRECAUTIONS FOR USE

- Exposure Limits: Occupational Exposure Limits – OEL.
50 ppm total hydrocarbon based on composition.
- Ventilation: Use in a well ventilated space and ensure ventilation is adequate to maintain air concentration below OEL. Local exhaust ventilation required in confined spaces.
- Personal Protection: Petroleum solvent resistant protective gloves to be worn to prevent prolonged skin contact.
- Chemical splash goggles or face shield to be worn to protect eyes.
- Avoid breathing vapour. If the OEL of any component of the product is likely to be exceeded, approved respirator suitable for organic vapours complying with (AS/NZS 1715 and AS/NZS 1716) may be necessary to prevent overexposure by inhalation.
- Flammability: Product is flammable and should only handled/dispensed in a well ventilated space to prevent build up of vapour or gases. Keep away from naked lights, sparks or any other potential ignition source. Use only explosion proof electric motors and flame proof fittings. Hoses should be electrically continuous and containers bonded to avoid static charge build up.

SAFE HANDLING INFORMATION

- Storage & Transport: Transportation of Dangerous Goods Code 3.
Store in containers in cool location, keep isolated from heat, sparks and sources of ignition. Store in well ventilated area. Where possible store under cover protected from weather and direct sunlight. Store only in original and approved containers. Static electricity generation may occur during pumping or decanting. Hoses should be electronically continuous, or properly earthed.
- Spills & Disposal:
- Spills Avoid Contact with strong oxidising agents.
- In the event of a minor spill, cover with sand or oil absorption media. Extinguish all sources of ignition. Where a major spill occurs - keep public away, extinguish all sources of ignition. Dam and recover, if possible. Prevent entry to drainage system. Advise authorities immediately of entry to drainage systems or contamination of soil or vegetation. Advise authorities (Police/Fire Brigade) of any major spill. Warn occupants downwind. If spill is in confined area an approved half-face cartridge respirator suitable for organic vapours to be worn.
- Disposal After recovery and evaporation, remaining contaminated soil may be disposed of to land fill or, if approved, allowed to degrade in situ. Prevent entry to ground water.

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<u>Fire/</u>	Flammable material. Flash Point P.M. Closed Cup 40°C		
<u>Explosion</u>	Flammability limits	LEL	UEL
<u>Hazard:</u>	(% volume)	0.9	6.0

Hazardous products of combustion are smoke, fumes, carbon monoxide.

Reactivity Data

Stability - Stable - avoid sources of ignition.

Fire Extinguishing media

Foam, dry chemical, carbon dioxide, BCF.

Special Firefighting Procedures

Use water spray to cool fire exposed surfaces and any adjacent storage vessels. Shut off source of product if safe to do so. Remove sources of reignition. Extinguish fire.

Unusual Fire & Explosion Hazards

Do not store or mix with strong oxidants, CO evolved if combustion incomplete. Product can form flammable mixtures or can burn only upon heating at or above flash point.

<u>Other</u>	Containers of this product are hazardous when empty. Do not weld, oxy
<u>Information</u>	cut or expose to flame or any ignition source.

REGULATORY INFORMATION

CLASSIFICATION AND LABELLING ACCORDING TO NOHSC CODES

CLASSIFICATION/SYMBOL: FLAMMABLE

NATURE OF SPECIAL RISK:

R10	Flammable
R20	Harmful by inhalation
R37	Irritating to respiratory system

SAFETY ADVICE

S43A	In case of fire use sand, earth, chemical powder or foam
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TRANSPORTATION INFORMATION

LAND:	(Railroad/road, such as ADG)
UN NUMBER:	1993
ADG CLASS:	3
PACKAGING GROUP:	III
HAZCHEM:	3Y
EPG:	3A1 SAA/SNZ NB76: 1977 – Guide 18
POISONS:	S 5

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SEA:	(IMDG)			
	UN NUMBER:	1993	IMDG CODE:	3345
	IMO CLASS	3.03	PACKAGING GROUP:	III
	MARINE POLLUTANT:	P	SUBSIDIARY RISK:	
	RISK LABEL:	3	MFAG NUMBER:	310
	EMS NUMBER:	3.07		

PROPER SHIPPING NAME:

Flammable liquids, n.o.s.

AIR:	ICAO/IATA CLASS:	3
	PASSENGER PACKING INSTRUCTION:	309 / Y309
	PASSENGER MAX. QUANTITY / PACK:	60 L/ 10 L
	CARGO PACKING INSTRUCTION:	310
	CARGO MAX. QUANTITY / PACK:	220 L
	PACKAGING GROUP:	III

OTHER INFORMATION

PRODUCT USE: For addition to liquid petroleum fuels as a combustion enhancer.

CONTACT POINT: COST EFFECTIVE MAINTENANCE

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