



MATERIAL SAFETY DATA SHEET

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COMPANY DETAILS

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1 IDENTIFICATION

Product Name: Combustion Catalyst FPC-1-NF
Manufacturers Code: 005 NF

2 HAZARD IDENTIFICATION

UN Number: Combustible Liquid. Not Dangerous Goods for Transport
Dangerous Goods Class: NA
Hazchem Code: NA
Poisons Schedule Number: S 5

CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA
NOT DANGEROUS ACCORDING TO THE CRITERIA OF THE ADG CODE

Symbols:

Xn Harmful
N Dangerous for the environment

Risk Phrases:

R65 - Harmful: May cause lung damage if swallowed
R66 - Repeated exposure may cause skin dryness or cracking
R67 - Vapours may cause drowsiness and dizziness
R 51/53 Toxic to aquatic organisms, may cause long term adverse effects on the aquatic environment.

Safety Phrases:

S2 Keep out of the reach of children
S23 Do not breathe vapour
S24 Avoid contact with skin
S28 After skin contact, immediately wash with plenty of water.
S35 This material and its contents must be disposed of in a safe way.
S37 Wear suitable gloves
S45 In case of accident or if you feel unwell, seek medical advice immediately. (Show the label if possible.)
S61 Avoid release to the environment.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show container or label

For addition to liquid petroleum fuels at a ratio of 1:5000 to enhance combustion, reduce carbonaceous deposits and some noxious emissions. Has biocidal qualities.

3 COMPOSITION / INGREDIENTS

Chemical entity	CAS No.	Proportion
Solvent 150	64 742-94-5	(Medium 10%-60%)
Octanol	111-87-5	(Low < 20%)
Phenol 2,4,6 Trinitro	88-89-1	(Low < 10%)
Phenol 2,4,6 Trinitro - iron (2+)Salt	14866-25-2	(Low < 10%)

4 FIRST AID / 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 250ml 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.

5 FIRE FIGHTING MEASURES

- Fire:** Combustible Liquid. Flash Point P.M. Closed Cup > 61°C
- 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.

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

6 ACCIDENTAL RELEASE MEASURES

Spills & Avoid Contact with strong oxidising agents.

Disposal: 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.

7 SAFE HANDLING AND STORAGE INFORMATION

Storage: 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 electrically continuous, or properly earthed.

8 EXPOSURE CONTROLS PRECAUTIONS FOR USE

Exposure Limits: Occupational Exposure Limits – OEL.
100 ppm 8 hour time weighted average.

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.

Protection: Personal 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 combustible and should only be 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Form/Colour	Dark green liquid
Odour:	Aromatic hydrocarbon odour
Boiling Point (°C);	Typical 158 - 214
Vapour Pressure	< 1.3 kPa @ 20°C
Vapour Density (Air 1)	4.8
Density @ 15°C;	0.860
Flash Point (Closed Cup) (°C);	>61
Auto Ignition Temperature (°C)	Typical 450
Flammability Limits (%);	0.01 – 7
Solubility in water (% mass);	<0.1

10 STABILITY AND REACTIVITY

Reactivity Data
Stability - Stable - avoid sources of ignition.

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.

11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute:

Swallowed: Expected to be of low toxicity: LD50>5000mg/kg, Rat. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Eye: Moderately irritating to eyes (but insufficient to classify).

Skin: May cause moderate skin irritation (but insufficient to classify). Prolonged contact may cause defatting of skin which can lead to dermatitis. Low toxicity LD50>5000mg/kg, Rat.

Inhaled: Inhalation of vapours or mists may cause irritation to the respiratory system. Low toxicity LC50 greater than near-saturated vapour concentration – 4 hours Rat.

Chronic: Central nervous system: repeated exposure affects the nervous system.

12 ECOLOGICAL INFORMATION

Based on hydrocarbon solvent and phenol components.

Ecotoxicity:

Fish:	Expected to be toxic 1 <LC/EC/IC50 <= 10mg/l
Aquatic Invertebrates:	Expected to be toxic 1 <LC/EC/IC50 <= 10mg/l
Algae:	Expected to be toxic 1 <LC/EC/IC50 <= 10mg/l
Microorganisms:	Expected to be toxic 1 <LC/EC/IC50 <= 10mg/l
Mobility:	Floats on water. Adsorbs to soil and has low mobility
Persistence/degradability:	Expected to be readily Biodegradable. Oxidises by photo-chemical reactions in air.
Bioaccumulation:	Has the potential to bio accumulate

13 DISPOSAL CONSIDERATIONS

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.

14 TRANSPORT INFORMATION

Combustible Liquid. Not Dangerous Goods as prescribed in the ADG Code.
If transported with flammable liquids must be transported as part of the flammables.
Not considered to be Environmentally Hazardous unless in containers greater than 1000 L

UN NUMBER:	NA
ADG CLASS:	NA
PACKING GROUP:	NA
HAZCHEM:	NA
EPG:	NA

15 REGULATORY INFORMATION

POISONS SCHEDULE: S 5

16 OTHER INFORMATION

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

CONTACT POINT: FUEL TECHNOLOGY PTY LTD

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The information contained herein is to the best of Fuel Technology’s knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user’s responsibility to satisfy him/herself as to the suitability and completeness of such information for his/her own particular use.
