MATERIAL SAFETY DATA SHEET

FYREX CI

Issued October 2009

1. IDENTIFICATION OF THE MATERIAL AND THE SUPPLIER

Product Name:	Fyrex Ci
Other Names:	None
Manufacturer's Product Code:	45025 250ml, 45001 1L, 45005 5L
	45020 20L, 45200 200L, 45000 100L cube
UN Number:	None allocated
Dangerous Goods Class and Subsidiary Risk:	None allocated
Hazchem Code:	None allocated
Poisons Schedule Number:	S5
Use:	Diesel Fuel Additive

Company:	Fuel & Infrastructure Management Australasia Pty Ltd (ABN: 53 144 011 432)
Address:	Unit 3, 58-60 Melbourne Road Riverstone N.S.W. 2765
	P.O. Box 73, Riverstone N.S.W. 2765
Telephone Number:	(02) 9627 2728
Emergency Telephone Number (24 Hour):	(02) 9627 2728
Fax Number:	(02) 9627 2728
E-mail:	accounts@fimaoz.com.au
Poisons Information Centre (24 Hour):	131126

(Have copy of this MSDS)

2. HAZARD IDENTIFICATION

Hazard Classification: HAZARDOUS SUBSTANCE. NON DANGEROUS GOOD.

	According to criteria of NOHSC, and the ADG code.
Risk Phrases:	HARMFUL – May cause lung damage if swallowed.
	Inhalation and/or skin contact may produce health damage.*
	May produce discomfort of the respiratory system.*
	Repeated exposure potentially causes skin dryness and cracking.*
	Vapours potentially cause drowsiness and dizziness.*
	*= Limited Evidence
Safety Phrases:	Do not breathe gas/fumes/vapour/spray.
	Use only in well ventilated place.
	Keep container in a well ventilated place.
	Keep container tightly closed.
	Take off immediately all contaminated clothing.
	If you feel unwell contact a Doctor or Poison Information Centre (show the label if possible).

3. COMPOSITION/INFORMATION OF INGREDIENTS

Name:	CAS Number	RN	Proportion
Heating Oil	Not available	N/Avail	30-60%
Performance Additives –Non Hazardous	Not available	N/Avail	30-60%

4. FIRST AID MEASURES

SWALLOWED If poisoning occurs, contact a doctor or Poisons Information Centre.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE If this product comes in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from the eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Centre or a doctor, or at least 15 minutes.
- Transport to hospital or a doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED If fumes or combustion products are inhaled remove from contaminated area.

- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which block airway, should be removed where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or a doctor.

NOTES TO PHYSICIAN

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest X-ray should be taken immediately after stabilization of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitization to catecholamines. Inhaled cardio-

selective bronchodilators (eye. Alupent, Salbutamol) are preferred agents, with aminophylline a second choice.

- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Reference: Ellenhorn and Barcelous: Medical Toxicology]

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog – large fires only.

FIRE FIGHTING
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from protected location.
- If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

Combustible. Will burn if ignited.

Heating may cause expansion or decomposition leading to violent rupture of containers.

Combustion products include carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidizing agents as ignition may result.

HAZCHEM

None

PERSONAL PROTECTIVE EQUIPMENT

Breathing apparatus. Chemical splash suit.

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES MINOR SPILLS

Slippery when spilt.

- Remove all ignition sources
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitably labeled container for waste disposal.

EMERGENCY PROCEDURES MAJOR SPILLS Slippery when spilt. Moderate Hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labeled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labeled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in section 8 or this MSDS.

7. HANDLING AND STORAGE

PROCEDURE

FOR HANDLING
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against exposure standards to ensure safe working conditions.

SUITABLE CONTAINER
- Metal can or drum.

- Packaging recommended by manufacturer.
- Check all containers clearly labeled and free from leaks.

STORAGE INCOMPATIBILITY Avoid storage with oxidisers.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- No smoking, naked lights or ignition sources.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROL None assigned. Refer to individual constituents.

Heating oil TLV TWA: 100mg/m3 as total hydrocarbons.

PERSONAL PROTECTION EYE

- Safety glasses with side shields, or as required.
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

PERSONAL PROTECTION - Butyl rubber gloves.

HANDS/FEET - Neoprene gloves

- PVC gloves.
- Safety footwear.
- PVC boots.

PERSONAL PROTECTION OTHER

- Overalls.
- Barrier cream.
- Eyewash unit.

PERSONAL PROTECTION RESPIRATOR Selection of the Class and Type or respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the Mask) may also be important.

Breathing zone level	Maximum Protection	Half-face Respirator	Full-face Respirator
Ppm (volume)	Factor		
1,000	10	A-AUS	-
1,000	50	-	A-AUS
5,000	50	Airline*	-
5,000	100	-	A-2
10,000	100	-	A-3
	100+	-	Airline **

*Continuous flow **Continuous flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of over exposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

TYPE OF CONTAMINANT:	AIR SPEED:
Solvent, vapours, degreasing etc, evaporating From tank (in still air).	0.25 – 0.5 m/s
Aerosols, fumes from pouring operations, Intermittent container filling, low speed conveyor Transfers, welding, spray drift, plating acid fumes, Pickling (released at low velocity into a zone of Active generation).	0.5 – 1.0 m/s
Direct spray, spray painting in shallow booths, Drum filling, conveyor loading, crusher dusts, Gas discharge (active generation into zone of rapid	1 – 2.5 m/s

Air motion).

Grinding, abrasive blasting, tumbling, high speed 2.5 – 10m/s

Wheel generated dusts (released at high initial

Velocity into zone of very high rapid air motion).

Within each range the appropriate value depends on:

Lower end of range:

1. Room air currents minimal or favourable to capture.
2. Contaminants of low toxicity or of nuisance Value only.
3. Intermittent, low production.
4. Large hood or large air mass in motion.

Upper end of range:

1. Disturbing room air currents.
2. Contaminants of high toxicity.
3. High production, heavy use.
4. Small hood – local control only.

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2m/s for extraction of solvents generated in a tank 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multipled by factors of 10 or more when extraction systems are installed or used.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear light yellow liquid with a fruity odour, does not mix with water.
PHYSICAL APPEARANCE	Liquid. Does not mix well with water. Floats on water.
Molecular Weight:	Not applicable
Melting Range (degrees C):	Not available.
Solubility in water (g/L):	Immiscible.
pH (1% solution):	Not applicable
Volatile Component (%vol):	Not available.
Relative Vapour Density (air = 1) :	>1
Lower Explosive Limit (%):	Not available.
Upper Explosive Limit (%):	Not available.
Auto ignition Temperature (degC):	Not available.

State:	Liquid.
Boiling range (degC):	Not available.
Specific Gravity (water = 1):	0.85 – 0.89
pH (as supplied):	Not applicable.
Vapour Pressure (kPa):	Not available.
Evaporation Rate:	Not available.
Flash Point (degC) :	>61
Decomposition Temperature (degC):	Not available

10. CHEMICAL STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials
- Product is considered stable
- Hazardous polymerization will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS

SWALLOWED	The liquid is highly discomforting and may be harmful if swallowed. Ingestion may result in nausea, pain vomiting. Vomit entering the lungs by aspirating may cause potentially lethal chemical pneumonitis.
EYE	Considered an unlikely route or entry in commercial/industrial environments. The liquid is discomforting to the eyes and is capable of causing a mild temporary redness of the conjunctiva (similar to wind-burn), temporary impairment of vision and/or other transient eye damage/ulceration.
SKIN	The liquid is discomforting to the skin if exposure is prolonged and is capable of causing skin reactions which may lead to dermatitis from repeated exposures over long periods. Toxic effects may result from skin absorption. The material may accentuate any pre-existing skin condition.
INHALED	The vapour/mist is discomforting to the upper respiratory tract. Inhalation hazard is increased at higher temperatures. Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and incoordination.

CHRONIC HEALTH EFFECTS

Principle routes of exposure are usually by inhalation of vapour and skin contact. Prolonged or continuous skin

Contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

12. ECOLOGICAL INFORMATION

No data for Fyrex Ci

13. DISPOSAL CONSIDERATIONS

Consult manufacturer for recycling options and recycle where possible.

Consult State Land Waste management Authority for disposal.

Incinerate residue at an approved site.

Recycle containers if possible, or dispose of in an authorized landfill.

14. TRANSPORTION INFORMATION

Shipping Name:	Fyrex Ci
Dangerous Goods class:	None
UN/NA Number:	None
ADR Number:	None
Packing Group:	None
Labels Required:	None
Additional Shipping Information:	None
International transport Regulations:	None
IMO:	None
Hazchem:	No

15. REGULATORY INFORMATION

POISONS SCHEDULE	S5

END OF MSDS