MATERIAL SAFETY DATA SHEET
Fuel Injector

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

Product Name:	**Fuel Injector**
Other Names:	
Product Codes/Trade Names:	N/A
Recommended Use:	Automotive engine additive
Applicable In:	Australia
Supplier:	Powerplus Fuel
Address:	118 Swann Drive, Derrimut Victoria-3030
Telephone:	+61 3 93690220
Email Address:	info@acbgroup.com.au
Facsimile:	+61 3 93690883
Emergency Phone Number:	000 Fire Brigade and Police (available in Australia only).
Poisons Information Centre:	13 11 26 (available in Australia only).

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with National standards and guidelines from the Australian Safety and Compensation Council (ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in product specifications and/or ASCC standards, codes, guidelines, or Regulations.

SECTION 2: HAZARD INDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.
Fuel Injector is classified as **Non** - **Dangerous good** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. COMBUSTIBLE LIQUID, regulated under AS1940 for bulk storage purposes only.

Risk Phrases

R38 • Irritating to skin.
R65 • HARMFUL- May cause lung damage if swallowed.
R67 • Vapours may cause drowsiness and dizziness.

Safety Phrases

S23 • Do not breathe gas/fumes/vapour/spray.
S24 • Avoid contact with skin.
S25 • Avoid contact with eyes.
S36 • Wear suitable protective clothing.
S37 • Wear suitable gloves.
S39 • Wear eye/face protection.
S51 • Use only in well ventilated areas.
S09 • Keep container in a well ventilated place.
S401 • To clean the floor and all objects contaminated by this material, use water
and detergent.
S07 • Keep container tightly closed.
S13 • Keep away from food, drink and animal feeding stuffs.
S26 • In case of contact with eyes, rinse with plenty of water and contact Doctor or
Poisons Information Centre.
S46 • If swallowed, IMMEDIATELY

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	Synonyms	Proportion:	CAS Number:
distillates (petroleum), straight- run middle, as gas oil, high flash point		➢ 60% w/w	64741-44-2.
solvent naphtha petroleum, heavy aromatic		1-5 % w/w	64742-94-5

SECTION 4: FIRST AID MEASURES

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

Swallowed: If a minor amount has been accidentally swallowed, then, if conscious, rinse mouth with water and then dilute stomach contents by giving large amounts of water.
Seek medical attention. Do not attempt to induce vomiting or give anything by mouth to an unconscious person. If person vomits place person on their side in recovery position.

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Skin: Remove contaminated clothing. Wash contaminated skin with soap and water. Seek medical attention if swelling, redness, blistering or irritation persists. Launder contaminated clothing before re-use.

Inhaled: Remove promptly to fresh air. If there are signs of drunkenness (intoxication or inebriation) or respiratory irritation, dizziness, nausea or headache occurs, seek immediate medical attention.
Treat unconsciousness by placing the person in the coma position. Apply artificial respiration if breathing stops.

First Aid Facilities: First aid kits, safety showers, eye wash stations

Advice to Doctor: 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, tachypnoea, intercostal retraction,
obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm 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 stabilisation of breathing and circulation to document aspiration and detect
the presence of pneumothorax.

SECTION 5: FIRE FIGHTING MEASURES

Flammability: Combustible.
• Slight fire hazard when exposed to heat or flame.
• Heating may cause expansion or decomposition leading to violent rupture of containers.
• On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

Suitable extinguishing media: Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Extinguish fire with alcohol type foam or dry chemical. Carbon dioxide may be used.

Hazards from combustion products: Burning can produce carbon monoxide and/or carbon dioxide.

Special protective precautions and Highly flammable liquid. Use water to cool exposed containers.

equipment for fire fighters:	Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Spills and leaks may be washed away with copious volumes of water, fog or spray. For major fires or where the atmosphere is either oxygen deficient or contains unacceptable levels of combustion products, fire fighters must wear self contained breathing apparatus with full face-mask and protective clothing.
HAZCHEM Code:	None

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedure:	In the event of a major spill, clear the area of all personnel. Alert Emergency services and advise them of the nature and location of the spill. Eliminate all sources of ignition. Wear full protective clothing and self contained breathing apparatus, especially in confined spaces. Prevent spillage from entering drains or water courses. Stop leak if safe to do so and contain spill.
Containment Procedure:	Absorb using soil, sand, or other non-combustible absorbent material. Avoid using sawdust or cellulose. Sweep up and shovel or collect recoverable product into labeled containers for disposal.
Clean Up Procedure:	Wash the cleaned up area with copious volumes of water to remove any trace amounts of product. Spills can be converted to non-flammable mixtures by dilution with water. Non-returnable containers should be de-gassed prior to disposal. Dispose of all waste Containers and used drums in accordance with local authority guidelines.

SECTION 7: HANDLING AND STORAGE

Handling:	Use in well ventilated areas away from all ignition sources. Intrinsically safe equipment only must be used in area where this chemical is being used. The use of compressed air for filling, discharging, mixing or handling is prohibited due to the vapour hazard. Containers must be earthed to avoid generation of static charges when agitating or transferring product. Observe normal hygiene standards. Avoid skin and eye contact and breathing in vapour, mists and aerosols. Ensure an eye bath and safety shower are available and ready for use.
Storage:	Store in tightly closed containers in cool, dry, isolated and well ventilated areas away from heat, sources of ignition and incompatibles. Store away from oxidizing agents, acids, combustible materials and sources of ignition. Keep containers closed at all times – check regularly for leaks. Do not eat, drink or smoke in areas of use or storage. Observe State Regulations concerning the storage and handling of Dangerous Goods. Store with all precautions required for handling flammable liquids. The requirement of Australian Standard AS 1940 should be observed in addition to AS 1020, AS 1076, AS 2380 and AS 3000. Empty containers retain residue (liquid and/or vapour) and are dangerous. Do not pressure cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition.
Incompatibilities:	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards:

National Occupational Exposure Standard (NES) Australian Safety & Compensation Council, ASCC (formerly NOHSC)

FUEL INJECTOR

TWA – Gas oil, high flash point (Oil mist refined material)- 5ppm
Solvent Naphtha petroleum, heavy aromatic (petrol gasoline) – 900ppm

Notes:

All occupational exposures to atmospheric contaminants should be kept to as low a level as is workable (practicable) and in all cases to below the National Standard.
These Exposure Standards are guides to be used in the control of occupational health hazards.
These Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.
STEL (Short Term Exposure Limit): the average airborne concentration over a 15 minute period that should not be exceeded at any time during a normal eight-hour work day.

Biological Limit Values:

N/A

ENGINEERING CONTROLS

Ventilation:

Local exhaust ventilation and/or mechanical (general) exhaust is recommended where vapours are likely to be generated. All such equipment must be intrinsically safe.

Special Consideration for Repair &/or Maintenance of Contaminated Equipment:

Empty containers retain residue (liquid and/or vapour) and are dangerous. Do not pressure cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition.
Vapour is heavier than air – prevent concentration in hollows or sumps. Do not enter confined spaces where vapour may have collected. Keep containers closed when not in use.

PERSONAL PROTECTION

Personal Hygiene

Protective clothing (gloves, coveralls, boots, etc.) should be worn to prevent skin contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed
engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to
provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation
that strategically "adds" and "removes" air in the work environment.

Skin Protection:

Avoid skin contact by the use of approved chemical resistant gloves and aprons – PVC or Neoprene (AS 2161).

Eye Protection:

Avoid eye contact by wearing chemical goggles with side shields or face shield (AS/NZS 1336) whenever exposed to vapour or mist or if there is a risk of splashing liquid in the eyes.
Safety showers with eye-wash should be provided in all areas where product is handled. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document,
describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a
review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and
first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of
chemical exposure, begin eye irrigation immediately and remove contact lens as

	soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].
Respiratory Protection:	•Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
Thermal Protection:	None should be needed under normal circumstances.
Smoking & Other Dusts	Smoking must be prohibited in all areas where this product is used - see safety information on flammability.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Yellowish liquid with light petroleum odour; does not mix with water.
Odour:	Petroleum odour
pH, at stated concentration:	N/A
Vapour pressure:	No data available.
Vapour Density:	No data available.
Boiling Point/range (°C):	No data available.
Melting Point (°C):	No data available
Solubility:	Immiscible
Specific Gravity range (H_2O = 1):	0.83-0.84 at 15 °C
FLAMMABLE MATERIALS	
Flash Point:	>61°C
Flash Point Method:	No data available
Flammable (Explosive) Limit - Upper:	No data available
Flammable (Explosive) Limit – Lower:	No data available
Auto ignition Temperature:	No data available
ADDITIONAL PROPERTIES	
Evaporation Rate	No Data available
Volatile Organic Compounds Content (VOC)	(as specified by the Green Building Council of Australia) Not Applicable
% Volatiles	No data available.

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Health effects information is based on reported effects in use from overseas and Australian reports.

Toxicological Data:

No data available

Swallowed:	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.).
Eyes:	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Skin:	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritating to skin.
Inhaled:	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. may cause central nervous system depression and unconsciousness.

Effects: Chronic
Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.
Additional Notes:

SECTION 12: ECOLOGICAL INFORMATION

Eco-toxicity: No data available
Persistence and Degradability: No data available
Mobility: No data available.

SECTION 13: DIPOSAL CONSIDERATIONS

• Recycle wherever possible.
• Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable
treatment or disposal facility can be identified.
• Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in
a licenced apparatus (after admixture with suitable combustible material).
• Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14: TRANSPORT INFORMATION

Proper Shipping Name: Fuel Injector Cleaner
UN number: Not Regulated
DG Class: Combustible liquid
Subsidiary Risk 1: None Allocated
Packaging Group: No data available
HAZCHEM code: None
Marine Pollutant: No
Special Precautions for User: Refer to incompatibilities in section 7 and stability and reactivity information in section 10.
ADDITIONAL TRANSPORT REQUIREMENTS: Nil

SECTION 15: REGULATORY INFORMATION

Poisons Schedule: S5

SECTION 16: OTHER INFORMATION

For further information on this product, please contact:
Powerplus Fuel
118 Swann Drive, Derrimut Victoria-3030, Australia.
Phone: +61 3 93690220
Fax: +61 3 93690883

ADDITIONAL INFORMATION
Australian Standards References:

AS 1020	The Control of undesirable static electricity.
AS 1076	Code of Practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications) – Parts 1 to 13.
AS/NZS 1336	Recommended Practices for Occupational Eye Protection

AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 1940	The Storage and Handling of Flammable and Combustible Liquids.
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)
AS 2380	Electrical equipment for explosive atmospheres – Explosion Protection Techniques (Parts 1 to 9).
AS 3000	Electrical installations (known as the Australian/New Zealand Wiring Rules).

Other References:

NOHSC:2011(2003)	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission.
NOHSC; 2012 (1994)	National Code of Practice for the Labeling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra.
NES	National Occupational Exposure Standards for workplace Atmospheric Contaminants (NES) Australian Safety and Compensation Council, ASCC (Formerly NOHSC) 1995 as amended.
ADG Code 6th Edition	Australian Dangerous Goods Code 6th Edition

AUTHORISATION

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END OF MSDS