SAFETY DATA SHEET

FUEL TREATMENT, DIESEL

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1. IDENTIFICATION

GHS Product Identifier FUEL TREATMENT, DIESEL

Product Code MZ100722EX

Company Name MITSUBISHI MOTORS AUSTRALIA LIMITED

Address 1284 South Road Clovelly Park SA 5042 Australia

Telephone/Fax Number Tel: +61 427 686 709

Emergency phone number 1800 638 556

Recommended use of the chemical and restrictions on use Diesel fuel system cleaner

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition) Flammable Liquids: Category 4 Skin Corrosion/Irritation: Category 2 Eye Damage/Irritation: Category 2A Sensitization - Skin: Category 1 Carcinogenicity: Category 2 STOT Single Exposure: Category 1 STOT Single Exposure: Category 3 (respiratory tract irritation) STOT Single Exposure: Category 3 (narcotic) STOT Repeated Exposure: Category 1 Aspiration Hazard: Category 1 Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1 Signal Word (s) DANGER

Hazard Statement (s) H227 Combustible liquid.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H370 Causes damage to organs.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Health hazard, Exclamation mark, Environment



Precautionary statement – Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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 advice/attention.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P314 Get medical advice/attention if you feel unwell.

P362 Take off contaminated clothing and wash before reuse.

P370+P378 In case of fire: Use carbon dioxide, dry chemical or foam for extinction. P391 Collect spillage.

Precautionary statement – Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition

Diesel fuel additive in solvent naphtha

Ingredients

Name	CAS	Proportion
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	70-80 %
2-Ethylhexyl nitrate	27247-96-7	10-20 %
1,2,4-trimethylbenzene	95-63-6	1-<10 %
Naphthalene	91-20-3	0.1-<15 %
Kerosine, petroleum	8008-20-6	1-<10 %
1,3,5-Trimethylbenzene	108-67-8	0.1-<3 %

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth and lips with water. Where vomiting occurs naturally have affected person place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide, dry chemical or foam. Alcohol resistant foam is preferred. If not available normal foam can be used.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes including aldehydes, ammonia, propylamine, polyalkylglycols, aliphatic alcohols, incomplete combustion products, carbon monoxide, carbon dioxide and oxides of nitrogen.

Specific Hazards Arising From The Chemical

Combustible. This product will burn if exposed to fire.

Hazchem Code

•3Z

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Remove all contaminated clothing immediately. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Use water spray to disperse vapours. Evacuate all unprotected personnel. If possible contain the spill. Large spills: Dyke far ahead of liquid spill for later recovery and disposal. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Prevent this material entering waterways, drains and sewers. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Do not use near ignition sources. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.

Avoid exposure. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Protect against direct sunlight. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 (2017) - The storage and handling of flammable and combustible liquids.

Storage Regulations

Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940 (2017).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Oil mist, refined mineral TWA: 5 mg/m³

Trimethylbenzene 25 ppm, 123 mg/m³

Naphthalene TWA: 10 ppm, 52 mg/m³ STEL: 15 ppm, 79 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eighthour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday. Source: Safe Work Australia

Source. Sale Work Australi

Biological Limit Values

Name: Naphthalene Determinant: 1-Naphthol* + 2-Naphthol* Value: - Sampling time: End of shift.

* with hydrolysis

Source: American Conference of Industrial Hygienists (ACGIH)

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 (2017) - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1(2009) Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715 (2009), Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 (2012), Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/ face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 2 & 6 (2012) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1 (2016): Occupational protective gloves - Selection, use and maintenance.

Recommended Materials:

Suitable materials also with prolonged, direct contact: Nitrile rubber

Suitable materials short-term contact and/or splashes: PVC or neoprene rubber

Footwear

Wear safety footwear. Final choice will vary according to individual circumstances.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid

Appearance Dark brown liquid

Colour Dark brown

Odour Aromatic

Decomposition Temperature Not available

Boiling Point Not available

Solubility in Water Insoluble

pH Not available Vapour Pressure Not available

Vapour Density (Air=1) Not available

Evaporation Rate Not available

Odour Threshold Not available

Viscosity 1.7 mm²/s (25°C)

Partition Coefficient: n-octanol/water Not available

Density 0.899 g/cm³ (15°C)

Flash Point 63°C

Flammability Combustible liquid

Auto-Ignition Temperature >400°C*

Flammable Limits - Lower 0.6 vol%*

Flammable Limits - Upper 7 vol%*

Explosion Properties Not available

Oxidising Properties Not available

Melting/Freezing Point Not available

Other Information *Solvent naphtha (petroleum), heavy aromatic

10. STABILITY AND REACTIVITY

Reactivity Reacts with incompatible materials.

Chemical Stability Stable under normal conditions of storage and handling.

Conditions to Avoid Heat, open flames and other sources of ignition.

Incompatible materials Strong acids. Strong oxidising agents.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes including: aldehydes, ammonia, propylamine, polyalkylglycols, aliphatic alcohols, incomplete combustion products, carbon monoxide, carbon dioxide and oxides of nitrogen. Ammonia may be formed on burning in limited air supply.

Possibility of hazardous reactions

Not available

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

Toxicity data for material given below.

Acute Toxicity - Oral

LD50 (rat): >2000 mg/kg Information given is based on product testing, and/or similar products, and/or components.

Acute Toxicity - Dermal

LD50 (rabbit): >2000 mg/kg

Information given is based on product testing, and/or similar products, and/or components.

Ingestion

May be fatal if swallowed and enters airways. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause severe pulmonary injury that may lead to death. May cause irritation to the mouth, throat, esophagus and stomach with symptoms of nausea, abdominal discomfort, vomiting and diarrhoea.

Inhalation

May cause respiratory irritation. Inhalation of product vapours can cause irritation of the nose, throat and respiratory system. May cause irritation to the mucous membrane and upper airways, especially where vapours or mists are generated. Symptoms include sneezing, coughing, wheezing, shortness of breath, headache, dizziness, drowsiness, nausea and vomiting.

Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Prolonged or repeated skin contact may cause defatting leading to drying and cracking of skin and dermatitis. May cause an allergic skin reaction.

Eye

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

(IARC).

Suspected of causing cancer. Classified as a suspected human carcinogen.

Nitrate or nitrite (ingested) under conditions that result in endogenous nitrosation is listed as a Group 2A: Probably carcinogenic to humans according to International Agency for Research on Cancer (IARC). Naphthalene is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer

Reproductive Toxicity

Not considered to be toxic to reproduction.

Causes foetotoxicity in animals at doses which are maternally toxic. Not expected to impair fertility.

STOT-single exposure

Causes damage to organs. May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. Target Organs: Central nervous system

Aspiration Hazard

May be fatal if swallowed and enters airways.

Other Information

Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.

Routes of Entry: Skin, Eyes, Inhalation,Ingestion.

Target Organs:

Contains material which may cause damage to the following organs: Blood, kidneys, lungs, liver, spleen, gastrointestinal tract, cardiovascular system, upper respiratory tract, skin, eyes, central nervous system (CNS) Inose/sinuses.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Persistence and degradability Not available

Mobility Not available

Environmental Fate This product contains components which may be persistent in the environment.

Bioaccumulative Potential Not available

Other Adverse Effects Not available

Environmental Protection Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish 1 < LC/EC/IC50 (fish) <= 10 mg/l

Acute Toxicity - Daphnia 1 < LC/EC/IC50 (aquatic Invertebrates) <= 10 mg/l

Acute Toxicity - Algae 1 < LC/EC/IC50 (algae) <= 10 mg/l

Acute Toxicity - Bacteria 1 < LC/EC/IC50 (microorganisms) <= 10 mg/l

13. DISPOSAL CONSIDERATIONS

Disposal considerations

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport:

This material is classified as Dangerous Goods Class 9 Miscellaneous Dangerous Goods

Class 9: Miscellaneous substances Dangerous Goods are incompatible in a placard load with any of the following:

Road and Rail Transport (ADG Code):

Class 1: Explosives (when the class 9 substance is a fire risk substance)

Division 5.1: Oxidising substances (when the class 9 substance is a fire risk substance) and

Division 5.2: Organic peroxides (when the class 9 substance is a fire risk substance)

Note: Special Provision AU01:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in:

packagings that do not incorporate a receptacle exceeding 500 kg(L); or $\ensuremath{\mathsf{IBCs}}$

Marine Transport (IMO/IMDG): Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 9 UN No: 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Solvent naphtha (petroleum), heavy aromatic & 2-Ethylhexyl nitrate & Naphthalene)(Solvent naphtha (petroleum), heavy aromatic, 2-Ethylhexyl nitrate, Naphthalene) MARINE POLLUTANT Packing Group: III EMS: F-A, S-F Special Provisions: 274, 335, 969 Air Transport (ICAO/IATA): Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air. Class/Division: UN No: 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Solvent naphtha (petroleum), heavy aromatic & 2-Ethylhexyl nitrate & Naphthalene) Packing Group: III Packaging Instructions (passenger & cargo): 964 Packaging Instructions (cargo only): 964 Hazard Label: Miscellaneous

Special Provisions: A97, A158, A197

U.N. Number 3082

UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Contains Solvent naphtha (petroleum), heavy aromatic & 2-Ethylhexyl nitrate & Naphthalene)

Transport hazard class(es) 9 Packing Group III Hazchem Code • 3Z IERG Number 47

IMDG Marine pollutant Yes

Transport in Bulk Not available

Special Precautions for User Not available

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

S5

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS created: October 2017

References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

END OF SDS

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