SAFETY DATA SHEET

Automotive Diesel Fuel

Section 1. Identification

GHS product identifier Automotive Diesel Fuel

Other means of identification Truck diesel, G10, BP 10 ppm diesel fuel, Ultra Low Sulphur diesel fuel, Automotive Diesel fuel, AD20, AD40, Alpine Diesel and Biodiesel up to B5.

Product code 0000002718

SDS # 0000002718

Historic SDS no. AD0K1

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/ mixture Fuel for compression ignition diesel engines.

Manufacturer

Supplier

Woodham Petroleum Services
160 Fox Street
Walgett NSW 2832

ABN 45 654 386 035

www.woodhampetroleum.com.au

Technical Helpline Number: 1300 139 700

EMERGENCY TELEPHONE NUMBER 1800 638 556

Section 2. Hazard(s) identification

Classification of the substance or mixture

FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms

Signal word DANGER

Hazard statements

H227 - Combustible liquid.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H332 - Harmful if inhaled.
H351 - Suspected of causing cancer.
H373 - May cause damage to organs through prolonged or repeated exposure. (bone marrow, liver, thymus)

Precautionary statements

General

P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Section 2. Hazard(s) identification

Prevention

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 - Use only outdoors or in a well-ventilated area.
P260 - Do not breathe vapour or spray.
P264 - Wash hands thoroughly after handling.

Response

P308 + P313 - IF exposed or concerned: Get medical attention.
P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 - If skin irritation occurs: Get medical attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.

Storage

P405 - Store locked up.

Disposal

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Not applicable.

Other hazards which do not result in classification

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapour may cause flash fire or explosion.

Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.
See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.
This material may contain significant quantities of polycyclic aromatic hydrocarbons, some of which have been shown by experimental studies to induce skin cancer.

Section 3. Composition and ingredient information

Substance/mixture Mixture

May contain Fatty Acid Methyl Esters (FAME). May also contain small quantities of proprietary performance additives. Contains small quantities of polycyclic aromatic hydrocarbons (PAHs).

Ingredient name	% (w/w)	CAS number
Fuels, diesel	≥75	CAS: 68334-30-5
Alkanes, C10-20-branched and linear	≤20	CAS: 928771-01-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Drench contaminated clothing with water before removing. This is necessary to avoid the risk of sparks from static electricity that could ignite contaminated clothing. Contaminated clothing is a fire hazard. Contaminated leather, particularly footwear, must be discarded. Clean shoes thoroughly before reuse. Get medical attention. If skin irritation or rash occurs: Get medical attention.

Ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Aspiration hazard if swallowed. Can enter lungs and cause damage. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

Treatment should in general be symptomatic and directed to relieving any effects. Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should be undertaken only after endotracheal intubation. Monitor for cardiac dysrhythmias.

Note: High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis.
Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

Specific treatments

No specific treatment.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable extinguishing media

Do not use water jet.

Section 5. Firefighting measures

Specific hazards arising from the chemical

Combustible liquid. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Vapours can form explosive mixtures with air. Vapours are heavier than air and can spread along the ground or float on water surfaces to remote ignition sources. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly-grounded containers. Static accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Liquid will float and may reignite on surface of water.

Hazardous thermal decomposition products

Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)

Special protective actions for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Immediately contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Eliminate all ignition sources.

For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities. Collect recovered product and other contaminated materials in suitable tanks or containers for recycle, recovery or safe disposal.

Methods and material for containment and cleaning up

Section 6. Accidental release measures

Small spill

Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres.

Large spill

Eliminate all ignition sources. Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Dike spill area and do not allow product to reach sewage system and surface or ground water. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilt product. The method and equipment used must be in conformance with appropriate regulations and industry practice on explosive atmospheres. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid contact of spilt material and runoff with soil and surface waterways. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Restrict flow velocity according to API 2003 (2008), NFPA 77 (2007), and Laurence Britton, “Avoiding Static Ignition Hazards in Chemical Operations”. To reduce potential for static discharge, ensure that all equipment is properly grounded and bonded and meets appropriate electrical classification requirements.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be

Section 7. Handling and storage

regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. Do not enter storage tanks. If entry to vessels is necessary, follow permit to work procedures. Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks). Explosive air/vapour mixtures may form at ambient temperature. If product comes into contact with hot surfaces, or leaks occur from pressurised fuel pipes, the vapour or mists generated will create a flammability or explosion hazard. Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Fuels, diesel	**ACGIH TLV (United States) [Diesel Fuel]** A3. Absorbed through skin. TWA 8 hours: 100 mg/m³ (measured as total hydrocarbons). Form: Inhalable fraction and vapor. Issued/Revised: 1/2007.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Chemical splash goggles.

Skin protection

Section 8. Exposure controls and personal protection

Hand protection

Wear chemical resistant gloves. Recommended: Nitrile gloves.

Do not re-use gloves. Protective gloves must give suitable protection against mechanical risks (i.e. abrasion, blade cut and puncture). Protective gloves will deteriorate over time due to physical and chemical damage. Inspect and replace gloves on a regular basis. The frequency of replacement will depend upon the circumstances of use.

Skin protection

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.
Wear suitable protective clothing.
Footwear highly resistant to chemicals.
When there is a risk of ignition wear inherently fire resistant protective clothes and gloves.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For greatest effectiveness against static electricity, overalls, boots and gloves should all be anti-static.
When the risk of skin exposure is high (from experience this could apply to the following tasks: cleaning work, maintenance and service, filling and transfer, taking samples and cleaning up spillages) then a chemical protective suit and boots will be required.
Work clothing / overalls should be laundered on a regular basis. Laundering of contaminated work clothing should only be done by professional cleaners who have been told about the hazards of the contamination. Always keep contaminated work clothing away from uncontaminated work clothing and uncontaminated personal clothes.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use with adequate ventilation.
If there is a requirement for the use of a respiratory protective device, but the use of breathing apparatus (independent of ambient atmosphere) is not required, then a suitable filtering device must be worn.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Recommended: If ventilation is inadequate, use respirator that will protect against organic vapour and dust/mist.

Refer to standards:

Respiratory protection:AS/NZS 1715 and AS/NZS 1716
Gloves:AS/NZS 2161.1
Eye protection:AS/NZS 1336 and AS/NZS 1337

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state Liquid.

Colour Water white to straw including fluorescent green, blue or yellow.

Odour Mild

Odour threshold 0.7 ppm (Based on Fuels, diesel)

pH Not applicable. Based on Solubility in Water (Very slightly soluble in water)

Melting point -29 to -18°C (-20.2 to -0.4°F) (Based on Fuels, diesel)

Section 9. Physical and chemical properties

Boiling point or initial boiling point and boiling range
180 to 380°C (356 to 716°F)

Flash point
Closed cup: >61.5°C (>142.7°F) [Pensky-Martens]

Evaporation rate
Not relevant/applicable due to nature of the product. Based on low volatility

Flammability
Combustible liquid and vapour.

Lower and upper explosion limit/flammability limit
Lower: 0.5%
Upper: 7.5%

Vapour pressure
0.1 kPa (0.755 mm Hg) (Based on Concawe Category: Vacuum Gas Oils, Hydrocracked Gas Oils & Distillate Fuels (VHGO))

Relative vapour density
>1 [Air = 1]

Relative density
0.83

Density
820 to 850 kg/m³ (0.82 to 0.85 g/cm³) at 15°C

Solubility(ies)

Media	Result
water	Very slightly soluble

Solubility in water
Not available.

Miscible with water
No.

Partition coefficient: n-octanol/water
Not applicable. Based on Fuels, diesel - Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Auto-ignition temperature
240°C (464°F) (Based on Fuels, diesel)

Decomposition temperature
Not observed to decompose by final boiling point: 380°C (716°F)

Viscosity
Kinematic: 2 to 4.5 mm^2/s (2 to 4.5 cSt) at 40°C

Particle characteristics

Median particle size
Not applicable.

Section 10. Stability and reactivity

Reactivity
No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

Chemical stability
The product is stable.

Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.

Conditions to avoid
Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.

Incompatible materials
Reactive or incompatible with the following materials: oxidising materials.

Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
Fuels, diesel	**Rat - Oral - LD50** 17900 mg/kg Equivalent to OECD 401 **Rat - Oral - LD50** 7600 mg/kg Equivalent to OECD 420 **Rabbit - Dermal - LD50** >4300 mg/kg

	Equivalent to OECD 434 **Rabbit - Dermal - LD50** >4300 mg/kg Equivalent to OECD 434 **Rat - Inhalation - LC50 Dusts and mists** 4.1 mg/l [4 hours] Equivalent to OECD 403
Alkanes, C10-20-branched and linear	**Rat - Oral - LD50** >2000 mg/kg EU B1 tris **Rat - Dermal - LD50** >2000 mg/kg EU B3

Conclusion/Summary[Product] Harmful if inhaled.

Ingredient name	Conclusion/Summary
Fuels, diesel	Harmful if inhaled.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Product/ingredient name	Result
Fuels, diesel	**Rabbit - Skin - Irritation** Equivalent to OECD 404 **Rabbit - Skin - Irritation** Equivalent to OECD 404
Alkanes, C10-20-branched and linear	**Unspecified - Skin - Non-irritant to skin.** EU B4

Conclusion/Summary[Product] Causes skin irritation.

Ingredient name	Conclusion/Summary
Fuels, diesel	Causes skin irritation.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product/ingredient name	Result
Fuels, diesel	**Rabbit - Eyes - Non-irritating to the eyes.** Equivalent to OECD 405 **Rabbit - Eyes - Non-irritating to the eyes.** Equivalent to OECD 405
Alkanes, C10-20-branched and linear	**Unspecified - Eyes - Non-irritating to the eyes.** EU B5

Conclusion/Summary[Product] Not classified. Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
Fuels, diesel	Not classified. Based on available data, the classification criteria are not met.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Respiratory corrosion/irritation

Not available.

Section 11. Toxicological information

Respiratory or skin sensitization

Product/ingredient name	Result
Fuels, diesel	**Guinea pig - skin** Equivalent to OECD 406 Result: Not sensitising **Guinea pig - skin** Equivalent to OECD 406 Result: Not sensitising
Alkanes, C10-20-branched and linear	**Unspecified - skin** EU B6 Result: Not sensitising

Skin

Conclusion/Summary[Product] Not classified. Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
Fuels, diesel	Not classified. Based on available data, the classification criteria are not met.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product/ingredient name	Result
Fuels, diesel	**In vitro - Non-mammalian species** OECD 471 Result: Positive **In vitro - Mammalian-Animal - Germ** Equivalent to OECD 476 Result: Negative **In vivo - Unspecified - Somatic** not guideline Result: Negative
Alkanes, C10-20-branched and linear	**In vitro - Unspecified** EU B10 Result: Negative **In vitro - Unspecified** EU B13/14 Result: Negative **In vitro - Unspecified** EU B17 Result: Negative

Conclusion/Summary[Product] Not classified. Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
Fuels, diesel	Not classified. Based on available data, the classification criteria are not met.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Result

Fuels, diesel	**Mouse - Dermal - Unspecified** Equivalent to OECD 451 2 years Result: Positive

Conclusion/Summary[Product] Suspected of causing cancer.

Ingredient name	Conclusion/Summary
Fuels, diesel	Suspected of causing cancer.

Reproductive toxicity

Product/ingredient name	Result
Fuels, diesel	**Rat - Dermal** Equivalent to OECD 414 20 days Developmental: Negative **Rat - Dermal** Equivalent to OECD 414 10 days Developmental: Negative **Rat - Dermal** Equivalent to OECD 414 10 days Developmental: Negative **Rat - Oral** OECD 422 10 days Fertility effects: Positive Developmental: Positive
Alkanes, C10-20-branched and linear	**Unspecified - Oral** OECD 416 Maternal toxicity: Negative Fertility effects: Negative Developmental: Negative

Conclusion/Summary[Product] Development: Not classified. Based on available data, the classification criteria are not met.
Fertility: Not classified. Based on available data, the classification criteria are not met.
Effects on or via lactation: Not classified. Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
Fuels, diesel	Development: Not classified. Based on available data, the classification criteria are not met. Fertility: Not classified. Based on available data, the classification criteria are not met. Effects on or via lactation: Not classified. Based on available data, the classification criteria are not met.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result

Fuels, diesel	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (bone marrow, liver, thymus) - Category 2

Aspiration hazard

Product/ingredient name	Result
Fuels, diesel	ASPIRATION HAZARD - Category 1
Alkanes, C10-20-branched and linear	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact No known significant effects or critical hazards.

Inhalation Harmful if inhaled.

Skin contact Causes skin irritation.

Ingestion Irritating to mouth, throat and stomach. Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact Adverse symptoms may include the following:
irritation
redness

Ingestion Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact Vapour, mist or fume may cause eye irritation. Exposure to vapour, mist or fume may cause stinging, redness and watering of the eyes.

Inhalation Vapour, mists or fumes may contain polycyclic aromatic hydrocarbons some of which are known to produce skin cancer. May be harmful by inhalation after often repeated exposure. Vapour, mist or fume may irritate the nose, mouth and respiratory tract.

Skin contact As with all such products containing potentially harmful levels of polycyclic aromatic hydrocarbons, prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer.

Ingestion If swallowed, may irritate the mouth, throat and digestive system. If swallowed, may cause abdominal pain, stomach cramps, nausea, vomiting, diarrhoea, dizziness and drowsiness.

Product/ingredient name	Result

Section 11. Toxicological information

Fuels, diesel	**Chronic - Rat - Dermal - LOAEL** Equivalent to OECD 411 [STOT - RE] 20 to 200 mg/kg [90 days] Toxic effects: blood **Sub-acute - Rabbit - Dermal - LOAEL** Equivalent to OECD 434 [STOT - SE] >2000 mg/kg **Sub-acute - Rat - Oral - LOAEL** Equivalent to OECD 401 [STOT - SE] >2000 mg/kg **Chronic - Rat - Inhalation - NOAEC** Equivalent to OECD 413 [STOT - RE] >0.2 mg/l [90 days] **Sub-acute - Rat - Inhalation - LOAEL** Equivalent to OECD 403 [STOT - SE] >5 mg/l [4 hours]
Alkanes, C10-20-branched and linear	**Sub-chronic - Rat - Oral - Unspecified** OECD 408 >100 mg/kg

Ingredient name	Conclusion/Summary
Fuels, diesel	STOT - RE: May cause damage to organs through prolonged or repeated exposure. STOT - SE: Not classified. Based on available data, the classification criteria are not met.
Alkanes, C10-20-branched and linear	Not classified. Based on available data, the classification criteria are not met.

General May cause damage to organs through prolonged or repeated exposure. Vapour, mists or fumes may contain polycyclic aromatic hydrocarbons some of which are known to produce skin cancer.

Carcinogenicity Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Automotive Diesel Fuel	N/A	N/A	N/A	N/A	4.1
Fuels, diesel	N/A	N/A	N/A	N/A	4.1

Other information Diesel exhaust particulates have been classified by the National Toxicological Program (NTP) to be a reasonably anticipated human carcinogen. Exposure should be minimized to reduce potential risk.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
Fuels, diesel	**Acute - LL50 - Fresh water** OECD 203 Fish 65 mg/l - Nominal [96 hours] Effect: Mortality **Acute - LL50 - Fresh water** OECD 203 Fish 21 mg/l - Nominal [96 hours] Effect: Mortality **Chronic - NOEL - Fresh water** Modelled data Fish 0.083 mg/l - Nominal [14 days] Effect: Mortality **Acute - EL50 - Fresh water** OECD 202 Daphnia 210 mg/l - Nominal [48 hours] Effect: Mobility **Acute - NOELR - Fresh water** OECD 202 Daphnia 46 mg/l - Nominal [48 hours] Effect: Mobility **Acute - EL50 - Fresh water** OECD 202 Daphnia 68 mg/l - Nominal [48 hours] Effect: Mobility **Chronic - NOELR - Fresh water** Modelled data Daphnia 0.2 mg/l - Nominal [21 days] Effect: Immobilisation **Acute - ErL50 - Fresh water** OECD 201 Algae 78 mg/l - Nominal [72 hours] Effect: (growth rate) **Acute - NOELR - Fresh water** OECD 201 Algae 10 mg/l - Nominal [72 hours] Effect: (growth rate) **Acute - EL50 - Fresh water** OECD 201 Algae 22 mg/l - Nominal [72 hours] Effect: (growth rate) **Acute - NOELR - Fresh water** OECD 201 Algae 1 mg/l - Nominal [72 hours] Effect: (growth rate) **EL50 - Fresh water** Modelled data

Section 12. Ecological information

	Micro-organism >1000 mg/l - Nominal [40 hours] Effect: growth inhibition **NOELR - Fresh water** Modelled data Micro-organism 3.217 mg/l - Nominal [40 hours] Effect: growth inhibition
Alkanes, C10-20-branched and linear	**Acute - LL50** OECD 203 Fish >1000 mg/l - WAF [96 hours] **Acute - EL50** OECD 202 Daphnia >100 mg/l - WAF [48 hours] **Acute - EL50** OECD 201 Aquatic plants >100 mg/l - WAF [48 hours] **Acute - EC50** OECD 209 Micro-organism >100 mg/l [3 hours] **Chronic - NOEC** OECD 211 Daphnia 1 mg/l - WAF [21 days]
Conclusion/Summary	Toxic to aquatic life with long lasting effects.

Persistence and degradability

Expected to be biodegradable.

Product/ingredient name	Result
Fuels, diesel	**Aerobic - 30 mg/l** OECD 301 F 60% [28 days] - Readily **Aerobic - 25 mg/l** OECD 301 F 57.5% [28 days] - Not readily **Aerobic - 5 mg/l** Equivalent to EPA OTS 796.3100 35% [28 days] - Not readily
Conclusion/Summary	Persistent per IMO criteria

Ingredient name	Conclusion/Summary
Fuels, diesel	Persistent per IMO criteria

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Alkanes, C10-20-branched and linear	>6.5	-	High

Mobility in soil

Soil/water partition coefficient	Not available.

Section 12. Ecological information

Mobility Spillages may penetrate the soil causing ground water contamination. This material may accumulate in sediments.

Other ecological information Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Special Precautions for Landfill or Incineration Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	Not regulated.	UN3082	UN3082
UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.. Marine pollutant (Fuels, diesel)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuels, diesel)
Transport hazard class(es)	-	9 	9 
Packing group	-	III	III
Environmental hazards	No.	Yes.	Yes.
Additional information	**Remarks** Combustible liquid Class C1 (AS 1940).	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. **Emergency schedules** F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user Not available.

Section 14. Transport information

Transport in bulk according to IMO instruments	**Proper shipping name**	MARPOL Annex 1 rules apply for bulk shipments by sea. Category: gas oils, including ship's bunkers

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

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Consumer products - This material is a scheduled poison and must be stored, maintained and used in accordance with the relevant regulations.

Industrial Products - Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSHC National Code of Practice for labelling of workplace substances.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

International lists

National inventory

REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.
Australia inventory (AIIC)	Contact local supplier or distributor.
Canada inventory	Not determined.
China inventory (IECSC)	All components are listed or exempted.
Japan inventory (CSCL)	Not determined.
Korea inventory (KECI)	Not determined.
Philippines inventory (PICCS)	Not determined.
Taiwan Chemical Substances Inventory (TCSI)	Not determined.
United States inventory (TSCA 8b)	Not determined.

Section 16. Any other relevant information

History

Date of printing	12/30/2025
Date of issue/Date of revision	12/30/2025
Date of previous issue	5/14/2021
Version	5
Prepared by	Product Stewardship

Section 16. Any other relevant information

Key to abbreviations

ADG = Australian Dangerous Goods
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
NOHSC = National Occupational Health and Safety Commission
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
STEL = Short term exposure limit
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations
TWA = Time weighted average
VOC = Volatile Organic Compound
SADT = Self-Accelerating Decomposition Temperature
Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4	On basis of test data
ACUTE TOXICITY (inhalation) - Category 4	Expert judgment
SKIN CORROSION/IRRITATION - Category 2	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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