

SAFETY DATA SHEET

Jet A-1



Section 1. Identification

Product name	Jet A-1
Synonym	Aviation Kerosine, Aviation Turbine Fuel, ATK, AVTUR, F-35, Turbine Fuel, Aviation Kerosine Type, Jet A-1
Product code	SAV2101 (UN 1863)
SDS no.	SAV2101 (UN 1863)
Use of the substance/mixture	Jet fuel, do not use for other purposes. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Product type	Liquid.
Supplier	bp Oil New Zealand Limited Level 2 Stantec Building 105 Carlton Gore Road Newmarket Auckland New Zealand 1023 Phone 0800 800 027 (Monday to Friday, 9am to 5pm) Email: Customerenquiries@se1.bp.com
Emergency telephone number	Tel: 0800 805 111
New Zealand National Poisons Centre	Tel: 0800 764 766

Section 2. Hazards identification

HSNO Classification	FLAMMABLE LIQUIDS - Category 3 ASPIRATION HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
----------------------------	---

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

Routes of entry	Dermal contact. Eye contact. Inhalation.
GHS label elements	
Signal word	Danger
Hazard statements	Flammable liquid and vapour. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.
Response	Collect spillage. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Storage	Store locked up.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Symbol



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.

Section 3. Composition/information on ingredients

Substance/mixture

Mixture

A mixture of kerosine streams. May also contain small quantities of proprietary performance additives. May contain Tracer A (LDTA-A) . May contain Renewable kerosene.

Ingredient name	% (w/w)	CAS number
Kerosine (petroleum), hydrodesulfurised	0 - 100	64742-81-0
Kerosine (petroleum)	0 - 100	8008-20-6
Kerosine (petroleum), sweetened	0 - 100	91770-15-9
Renewable hydrocarbons (kerosene type fraction)	0 - 50	-

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 or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Inhalation

If inhaled, remove to fresh air. Get medical attention if symptoms occur.

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.

Skin contact

Flush contaminated skin with plenty of water. 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. Remove contaminated clothing and shoes. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

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 if symptoms occur.

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.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Firefighting measures

Extinguishing media

Suitable

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

Not suitable

Do not use water jet.

Specific hazards arising from the chemical

Flammable liquid and vapour. 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. This material is toxic to aquatic life with long lasting effects. 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 combustion products

Combustion products may include the following:
carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)

Hazchem code

3Y

Special precautions 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

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".

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. Collect spillage. 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

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.

Section 6. Accidental release measures

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

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Aspiration hazard if swallowed. Can enter lungs and cause damage. Never siphon by mouth. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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. Take precautionary measures against electrostatic discharges. 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.

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 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/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Kerosine (petroleum), hydrosulfurised	ACGIH TLV (United States). [Kerosene] Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours. Issued/Revised: 1/2003
Kerosine (petroleum)	ACGIH TLV (United States). [Kerosene] Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours. Issued/Revised: 1/2003

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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 protection

Chemical splash goggles.

Hand protection

Wear chemical resistant 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.

Recommended: Nitrile gloves.

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

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.

Section 8. Exposure controls/personal protection

Recommended: Gas filter suitable for gases and vapours. Filter type: A
Combined filter suitable for gases, vapours and particles (dust, smoke, mist, aerosol). Filter type: AP

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	Colourless. / Yellow.
Odour	Hydrocarbon.
pH	Not applicable. Based on Solubility in Water (Very slightly soluble in water)
Melting point/freezing point	<-47°C (<-52.6°F)
Boiling point, initial boiling point, and boiling range	150 to 300°C (302 to 572°F)
Drop Point	Not available.
Flash point	Closed cup: ≥40°C (≥104°F) [Pensky-Martens]
Auto-ignition temperature	207 to 250°C (404.6 to 482°F)
Flammability	Flammable liquid and vapour.
Lower and upper explosion limit/flammability limit	Lower: 0.6% Upper: 6%
Evaporation rate	Not relevant/applicable due to nature of the product. Based on low volatility
Vapour pressure	2 kPa (15.001 mm Hg) [38°C (100.4°F)]
Relative vapour density	>3 [Air = 1]
Density	780 to 840 kg/m³ (0.78 to 0.84 g/cm³) at 15°C
Solubility(ies)	

Media	Result
water	Very slightly soluble

Solubility at room temperature (g/l)	0.05 g/l
Miscible with water	No.
Partition coefficient: n-octanol/water	Not applicable. Based on Kerosene - Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Decomposition temperature	Not observed to decompose by final boiling point: >300°C (>572°F)
Viscosity	Dynamic: 0.001 Pa·s (1.4 cP) at 20°C Kinematic: <7 mm²/s (<7 cSt) at 40°C
Oxidising properties	Based on Kerosene - Not considered oxidizing based on structural considerations.
Particle characteristics	
Median particle size	Not applicable.

Section 10. Stability and reactivity

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 likely routes of exposure

Inhalation	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.
Ingestion	Aspiration hazard if swallowed -- harmful or fatal if liquid is aspirated into lungs.
Skin contact	No known significant effects or critical hazards.
Eye contact	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	No specific data.
Ingestion	Adverse symptoms may include the following: nausea or vomiting
Skin contact	No specific data.
Eye contact	No specific data.

Acute toxicity

Product/ingredient name	Test	Species	Result	Exposure	Remarks
Kerosene	LC50 Inhalation Vapour	Rat	>5.28 mg/l Mortality and Systemic Effects	4 hours	Based on Straight run kerosene
	LD50 Dermal	Rabbit	>2000 mg/kg Mortality and Systemic Effects	-	Based on Thermocracked kerosene
	LD50 Oral	Rat	>5000 mg/kg	-	Based on Thermocracked kerosene
Renewable hydrocarbons (kerosene type fraction)	LC50 Inhalation Vapour	Rat - Male	4467 mg/l	8 hours	-
	LD50 Dermal	Rat	>2000 mg/kg	-	-
	LD50 Oral	Rat	>2000 mg/kg	-	Based on Thermocracked kerosene

Conclusion/Summary

Not classified. Based on available data, the classification criteria are not met.

Irritation/Corrosion

Product/ingredient name	Species	Result	Score	Exposure	Observation	Conc.	Remarks
Kerosene	Rabbit	Eyes - Non-irritating to the eyes.	-	100%	-	100%	Based on Thermocracked kerosene
	Rabbit	Skin - Irritation	-	24 hours 100%	-	100%	Based on Heating Oil.
	Rabbit	Skin - Non-irritant to skin.	-	4 hours 100 %	-	100 %	Based on Kerosene
Renewable hydrocarbons (kerosene type fraction)	Rabbit	Eyes - Non-irritating to the eyes.	-	-	72 hours	-	-
	Rabbit	Skin - Non-irritant to	-	-	72 hours	-	-

Section 11. Toxicological information

skin.

Conclusion/Summary

Skin Causes skin irritation.
Eyes Not classified. Based on available data, the classification criteria are not met.
Respiratory Not available.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result	Remarks
Kerosene	skin	Guinea pig	Not sensitising	Based on Thermocracked kerosine
Renewable hydrocarbons (kerosene type fraction)	skin	Guinea pig	Not sensitising	-

Conclusion/Summary

Skin Not classified. Based on available data, the classification criteria are not met.
Respiratory Not available.

Potential chronic health effects

General No known significant effects or critical hazards.
Inhalation May be harmful by inhalation after often repeated exposure. Vapour, mist or fume may irritate the nose, mouth and respiratory tract.
Ingestion Ingestion of large quantities may cause nausea and diarrhoea. If swallowed, may irritate the mouth, throat and digestive system. If swallowed, may cause abdominal pain, stomach cramps, nausea, vomiting, diarrhoea, dizziness and drowsiness.
Skin contact Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
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.
Carcinogenicity No known significant effects or critical hazards.
Mutagenicity No known significant effects or critical hazards.
Teratogenicity 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.

Carcinogenicity

Product/ingredient name	Test		Species	Result	Exposure
Kerosene	Mouse	Dermal	2 years	Negative - Dermal - Unspecified	- Based on Hydrotreated Kerosine
	Mouse	Dermal	2 years	Positive - Dermal - Unspecified	- Based on Jet Fuel

Conclusion/Summary Not classified. Based on available data, the classification criteria are not met. Mechanistic understanding suggests tumors observed in animal models are not relevant to man.

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result	Remarks
Kerosene	Equivalent to OECD 476	Experiment: In vitro	Negative	Based on Hydrodesulphurised kerosine
		Subject: Mammal - species unspecified		
	Equivalent to OECD 476	Experiment: In vitro	Negative	Based on Hydrodesulphurised kerosine
		Subject: Mammal - species unspecified		
	Equivalent to OECD 471	Experiment: In vitro	Negative	Based on Hydrodesulphurised kerosine
		Subject: Non-mammalian species		
Renewable hydrocarbons (kerosene type fraction)	EU B.13/14	Experiment: In vitro	Negative	-
		Subject: Bacteria Cell: Germ		
	EU B.17	Experiment: In vitro	Negative	-
		Subject: Mammalian-Animal Cell: Somatic		
	EU B.10	Experiment: In vitro	Negative	-
		Subject: Mammalian-Human Cell: Somatic		

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

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Result	Exposure
Kerosene	-	Negative	-	Rat	Dermal	34 days
	-	-	Negative	Rat	Inhalation	10 days
	-	-	Negative	Rat	Oral	10 days
	-	Negative	-	Rat	Oral	90 days
Renewable hydrocarbons (kerosene type fraction)	-	Negative	-	Rat	Oral	2 generation

Conclusion/Summary 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.

Section 11. Toxicological information

Aspiration hazard

Name
Kerosine (petroleum), hydrodesulfurised
Kerosine (petroleum)
Kerosine (petroleum), sweetened
Renewable hydrocarbons (kerosene type fraction)

Section 12. Ecological information

Ecotoxicity This product shows a high bioaccumulation potential. Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

Aquatic and terrestrial toxicity

Product/ingredient name	Species	Result/Test	Exposure	Effects	Remarks
Kerosene	Algae	EL50 1 to 3 mg/l Nominal Fresh water	72 hours	cell number	Based on Solvent naphtha (petroleum), heavy aromatic
	Micro-organism	LL50 677.9 mg/l Nominal Fresh water	72 hours	growth inhibition	Based on Kerosene
	Algae	LOEL 1 mg/l Nominal Fresh water	72 hours	cell number	Based on Solvent naphtha (petroleum), heavy aromatic
	Algae	NOEL 1 mg/l Nominal Fresh water	24 hours	cell number	Based on Solvent naphtha (petroleum), heavy aromatic
	Algae	NOEL 1 mg/l Nominal Fresh water	48 hours	cell number	Based on Solvent naphtha (petroleum), heavy aromatic
	Micro-organism	NOEL 1.641 mg/l Nominal Fresh water	72 hours	growth inhibition	Based on Kerosene
	Daphnia	Acute EL50 1.4 mg/l Nominal Fresh water	48 hours	Mobility	Based on Kerosine (petroleum), hydrodesulfurised
	Fish	Acute LL50 2 to 5 mg/l Fresh water	96 hours	Mortality	Based on Heavy aromatic solvent naphtha
	Daphnia	Acute NOEL 0.3 mg/l Nominal Fresh water	48 hours	Mobility	Based on Kerosine (petroleum), hydrodesulfurised
	Fish	Acute NOEL 2 mg/l Fresh water	96 hours	Mortality	Based on Solvent naphtha (petroleum), heavy aromatic
	Daphnia	Chronic EL50	21 days	Reproduction	Based on

Section 12. Ecological information

Renewable hydrocarbons (kerosene type fraction)		0.89 mg/l Fresh water			Kerosine (petroleum), hydrodesulfurised
	Daphnia	Chronic EL50 0.81 mg/l Fresh water	21 days	Immobilisation	Based on Kerosine (petroleum), hydrodesulfurised
	Daphnia	Chronic LOEL 1.2 mg/l Fresh water	21 days	Reproduction	Based on Kerosine (petroleum), hydrodesulfurised
	Daphnia	Chronic LOEL 0.48 mg/l Fresh water	21 days	Adult Length	Based on Kerosine (petroleum), hydrodesulfurised
	Daphnia	Chronic NOEL 0.48 mg/l Fresh water	21 days	Reproduction	Based on Kerosine (petroleum), hydrodesulfurised
	Daphnia	Chronic NOEL 1.2 mg/l Fresh water	21 days	Adult Length	Based on Kerosine (petroleum), hydrodesulfurised
	Fish	Chronic NOEL 0.098 mg/l Nominal Fresh water	28 days	Mortality	Based on Kerosene
	Micro-organism	Acute EC50 >1000 mg/l Fresh water	3 hours	-	-
	Algae	Acute EL50 >100 mg/l Nominal Fresh water	72 hours	-	-
	Crustaceans	Acute EL50 >100 mg/l Nominal Fresh water	48 hours	Mobility	-
	Fish	Acute LL50 >1000 mg/l Fresh water	96 hours	Mortality	-
	Crustaceans	Chronic LOEC 3.2 mg/l Fresh water	21 days	-	-
	Crustaceans	Chronic NOEC 1 mg/l Nominal Fresh water	21 days	-	-
	Fish	Chronic NOELR 100 mg/l	33 days	-	-

Persistence and degradability

Expected to be biodegradable. Non-persistent per IMO criteria

Section 12. Ecological information

Product/ingredient name	Test	Result	Remarks
Renewable hydrocarbons (kerosene type fraction)	OECD 301B	82 % - 28 days	-

Bioaccumulative potential

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

Product/ingredient name	LogP _{ow}	BCF	Potential
Kerosene	3 to 6	-	high
Renewable hydrocarbons (kerosene type fraction)	>6.2	355.6	low

Mobility in soil

Mobility	Spillages may penetrate the soil causing ground water contamination.
Soil/water partition coefficient (K_{oc})	Not available.
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.
-------------------------	--

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
New Zealand Class	UN1863	FUEL, AVIATION, TURBINE ENGINE. Marine pollutant	3	III	 	The marine pollutant mark is not required when transported by road or rail. Hazchem code 3Y
ADG Class	UN1863	Fuel, aviation, turbine engine	3	III		Hazchem code 3Y Initial emergency response guide 14
IATA Class	UN1863	FUEL, AVIATION, TURBINE ENGINE	3	III		The environmentally hazardous substance mark may appear if required by other transportation regulations.

Section 14. Transport information

IMDG Class	UN1863	FUEL, AVIATION, TURBINE ENGINE. Marine pollutant	3	III	 	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Emergency schedules</u> F-E, S-E
------------	--------	--	---	-----	--	--

PG* : Packing group

Section 15. Regulatory information

New Zealand Regulatory Information

HSNO Approval Number	HSR001049
HSNO Group Standard	None assigned.
HSNO Classification	FLAMMABLE LIQUIDS - Category 3 ASPIRATION HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Regulation according to other foreign laws

REACH Status	The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.
United States inventory (TSCA 8b)	Not determined.
Australia inventory (AIC)	Not determined.
Canada inventory status	Not determined.
China inventory (IECSC)	Not determined.
Japan inventory (CSCL)	At least one component is not listed.
Korea inventory (KECI)	Not determined.
Philippines inventory (PICCS)	Not determined.
Taiwan Chemical Substances Inventory (TCSI)	Not determined.

Section 16. Other information

History

Date of issue/Date of revision	23 February 2024
Date of previous issue	No previous validation.
Version	1
Prepared by	Not available.
Key to abbreviations	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

Notice to reader

Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of

Product name Jet A-1 Product code SAV2101 (UN 1863) Page: 13/14

Version 1 Date of issue 23 February 2024 Format New Zealand Language ENGLISH
(ENGLISH)

Section 16. Other information

any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.