



1. Identification of the substance/preparation and company/undertaking

Product name	Jet A-1
SDS no.	SAV2101 (UN 1863)
Product use	Jet fuel, do not use for other purposes. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Synonyms	Aviation Kerosine, Aviation Turbine Fuel, ATK, Jet A, AVTUR, F-35, Turbine Fuel, Aviation Kerosine Type, Jet A-1
Supplier	Air BP Ltd Chertsey Road Sunbury-on-Thames Middlesex TW16 7LN United Kingdom For general enquiries please go to http://www.airbp.com

EMERGENCY TELEPHONE NUMBER CARECHEM: +44 1865 407333

2. Composition/information on ingredients

A mixture of kerosine streams. May also contain small quantities of proprietary performance additives.

Chemical name	CAS no.	%	EINECS / ELINCS.	Classification
Straight run kerosine	8008-20-6	0 - 100	232-366-4	R10 Xn; R65 Xi; R38 N; R51/53
Kerosine - unspecified	64742-81-0	0 - 100	265-184-9	R10 Xn; R65 Xi; R38 N; R51/53

See section 16 for the full text of the R-phrases declared above

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

3. Hazards identification

This preparation is classified as dangerous according to Directive 1999/45/EC as amended and adapted.

Physical/chemical hazards	Flammable.
Human health hazards	Irritating to skin. Harmful: may cause lung damage if swallowed.
Environmental hazards	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Effects and symptoms	
Eyes	No significant health hazards identified.
Skin	Causes skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Inhalation	No significant health hazards identified.
Ingestion	Aspiration hazard if swallowed- can enter lungs and cause damage.

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4. First-aid measures

Eye contact	In case of contact with eyes, rinse immediately with a copious amount of water. Get medical attention if irritation occurs.
Skin contact	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention immediately. In extreme situations of saturation with this product, drench with water, remove clothing as soon as possible and wash skin with soap and water. Seek medical advice if skin becomes red, swollen or painful.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms appear.
Ingestion	If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Aspiration hazard if swallowed- can enter lungs and cause damage. Obtain medical attention.
Notes to physician	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.

5. Fire-fighting measures

Extinguishing media	
Suitable	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable	Do not use water jet.
Hazardous decomposition products	Carbon oxides (CO, CO ₂) and other hazardous substances.
Unusual fire/explosion hazards	Flammable liquid and vapour. Vapour may cause flash fire. Vapours may accumulate in low or confined areas, travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Special fire-fighting procedures	DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows.
Protection of fire-fighters	Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

Personal precautions	Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures"). Do not touch or walk through spilled material. Ensure good ventilation.
Environmental precautions and clean-up methods	If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal protection in case of a large spill	Splash goggles. Full suit. Boots. Gloves. 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 positive pressure breathing apparatus (SCBA). Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

7. Handling and storage

Handling	Avoid breathing vapours or spray mists. Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Avoid contact of spilled material and runoff with soil and surface waterways. Wash thoroughly after handling. Never siphon by mouth. When using do not eat, drink or smoke.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store and use only in equipment/containers designed for use with this product. Do not remove warning labels from containers. Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and an oxygen concentration of at least 20% volume. Always have sufficient people standing by outside the tank with appropriate breathing apparatus and equipment to effect a quick rescue.

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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. 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. 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.

8. Exposure controls/personal protection

Ingredient name

Straight run kerosine

Occupational exposure limits

ACGIH TLV (United States, 1/2005). Skin
TWA: 200 mg/m³ 8 hour(s).

Whilst specific OELs for certain components are included in this SDS, it should be noted that other components of the preparation will be present in any mist, vapour or dust produced. For this reason, the specific OELs may not be applicable to the product and are provided for guidance purposes.

Control Measures

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

Hygiene measures

Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day. Ensure that eyewash stations and safety showers are close to the workstation location. All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. 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. Relevant information can be obtained from the European Committee for Standardisation <http://www.cenorm.be/cenorm/index.htm>.

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.

The above information is provided to assist the customer in conducting its own assessment of risk to the health and safety of workers for the substance or preparation, and protection of the environment.

Personal protective equipment

Respiratory system

Ensure good ventilation.

In case of insufficient ventilation, wear suitable respiratory equipment.

Provided an air-filtering/air-purifying respirator is suitable, a filter for organic gases and vapours (boiling point >65°C) can be used for vapour. Use filter type A or comparable standard.

Provided an air-filtering/air-purifying respirator is suitable, a filter for particulates can be used for mist or fume. Use filter type P or comparable standard.

A combination filter for particles, organic gases and vapours (boiling point >65°C) may be required if mist or fume is present as well as vapour. Use filter type AP or comparable standard.

Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn.

Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required.

Skin and body

Avoid skin contact. Wear clothing and footwear that cannot be penetrated by chemicals or oil.

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.

Hands

Wear chemical resistant gloves.

Recommended: nitrile gloves

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.

Eyes

Chemical splash goggles.

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9 . Physical and chemical properties

Flash point	38 °C minimum (Closed cup) Pensky-Martens.
Colour	Colourless. / Yellow.
Odour	Hydrocarbon.
Physical state	Liquid.
Boiling point / range	156 to 258 °C
Density	Between 775 and 840 kg/m ³ (Between 0.775 and 0.84 g/cm ³) at 15°C
Solubility	Insoluble in water.
LogK_{ow}	The product is more soluble in octanol; log(octanol/water) >3
Viscosity	Kinematic: 8 mm ² /s (8 cSt) Maximum at -20°C

10 . Stability and reactivity

Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Avoid excessive heat.
Incompatibility with various substances	Reactive with oxidising agents.
Hazardous polymerisation	Will not occur.
Hazardous decomposition products	Carbon oxides (CO, CO ₂) and other hazardous substances.

11 . Toxicological information

Acute toxicity	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs. Likely to cause skin irritation. Aspiration hazard if swallowed- can enter lungs and cause damage. May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes.
Chronic toxicity Carcinogenic effects	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European Commission (EC).

12 . Ecological information

Persistence/degradability	Inherently biodegradable.
Mobility	Spillages may penetrate the soil causing ground water contamination.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Environmental hazards	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.





13 . Disposal considerations

Disposal Consideration / Waste information	Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations. 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. Empty containers represent a fire hazard as they may contain flammable product residues and vapour. Never weld, solder or braze empty containers.
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14 . Transport information

International transport regulations

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Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Classification	1863	FUEL, AVIATION, TURBINE ENGINE	3	III		Hazard identification number 30 UK Emergency Action Code: 3Y
ADNR Classification	1863	FUEL, AVIATION, TURBINE ENGINE	3	III		Remarks Classification code F1
IMDG Classification	1863	FUEL, AVIATION, TURBINE ENGINE	3	III		Not determined.
IATA Classification	1863	FUEL, AVIATION, TURBINE ENGINE	3	III		Not determined.

15 . Regulatory information

Label requirements

Hazard Symbol(s)



Harmful



Dangerous for the environment.

Indication of danger

Risk phrases

R10- Flammable.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S2- Keep out of the reach of children.
S23- Do not breathe fumes/vapour/spray
S24- Avoid contact with skin.
S43 - In case of fire, use foam, dry powder, carbon dioxide. Never use water.
S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheet.

EU regulations

Classification and labelling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.

Other regulations

Inventories

AUSTRALIAN INVENTORY (AICS): In compliance.
CANADA INVENTORY (DSL): In compliance.
CHINA INVENTORY (IECS): In compliance.
EC INVENTORY (EINECS/ELINCS): In compliance.
JAPAN INVENTORY (ENCS): In compliance.
KOREA INVENTORY (ECL): In compliance.
PHILIPPINE INVENTORY (PICCS): In compliance.
US INVENTORY (TSCA): In compliance.

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Child protection

Yes, applicable.

Tactile warning of danger

Yes, applicable.

National regulations

Royal Decree 255/2003 adopted into Spanish law the Regulation on the classification, packaging and labelling of dangerous preparations. Royal Decree 363/1995 adopted into Spanish law the Regulation on the notification of new substances and the classification, labelling and packaging of dangerous substances.

16 . Other information

Full text of R-phrases referred to in sections 2 and 3

R10- Flammable.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

History

Date of issue

26/04/2006.

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26/04/2006.

Prepared by

Product Stewardship Group

Notice to reader

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 us.

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 any hazards described in this sheet and of any precautions that should be taken.

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