

MATERIAL SAFETY DATA SHEET (MSDS)



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1. MATERIAL AND PRODUCER IDENTIFICATION	
PRODUCT NAME	: AVTUR / Jet A-1
USAGE	: AVIATION TURBIN ENGINE
PRODUCER	: PT PERTAMINA (PERSERO) Unit Aviation Wisma Nusantara Building 22 nd Floor Jl. MH. Thamrin Kav. 59 Jakarta Pusat – 10350 Telepon : +6221- 3920811 / 3920716 / 3920638 Ext : 2240 / 2260 Fax : +6221- 3920639 / 39200684 E-mail : aviation@pertamina.com : Website : www.pertamina.com
Emergency Phone Number within 24 hours	: +6221– 5507482 Soekarno Hatta Fuel Terminal & Hydrant Installation (SHAFTHI)
MSDS Information Telephone Number	: +6221- 3920811 / 3920716 / 3920638 Ext : 2240 / 2260

2. HAZARD IDENTIFICATION	
Hazard Communication Standard	: OSHA 29 CFR 1910.1200 (hazardous)
Exposure Effects	: Repeated contact with the skin for a long time can cause irritation to the respiratory tracts, dizziness, nausea and becoming unconscious
Emergency Response Data	: Colorless liquid and is flammable. DOT ERG No.128

3. MATERIAL COMPOSITION/IDENTITY INFORMATION					
Chemical Name and Synonyms	:	Kerosine			
Chemical Identity	CAS	EINECS	Symbol (s)	R-phrase	Conc
Kerosine (petroleum) hydrodesulphurised	64742-81-0	265-184-9	Xi, Xn, N	R10, R83, R65, R51/53	0,00 – 100.00%
Diethylene glycol monomethyl ether Kerosine	111-77-3	203-906-6			0,00 – 0,15%
	8008-20-6	232-366-4	Xi, Xn, N	R10, R38, R65, R51/53	0,00 – 100,0%

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4. FIRST AID METHODS	
Eye Contact	: Flush the eyes continuously with copious amount of water. If irritation persists seek medical advice.
Skin Contact	: Wash the contacted part with water and soap.
Inhaled	: Upwind position and go to open air
Swallowed	: When the substance is swallowed, give one or two glasses of water and ask him/her to drink at once prior to the seeking of medical help in the Emergency Installation or other Emergency Centers.
CAUTION	: Never stimulate the victims to vomit or to swallow anything when they are Unconscious.

5. FIRE FIGHTING METHODS	
Fire Fighting Media	: Carbon dioxide, dry chemical powder and foam
Specific Procedure in Fire Fighting	
a. Carbon dioxide	: Spray it to the front fire from upwind
b. Dry Chemical Powder	: Spray it to the front fire from upwind
c. Foam	: When the fire is in a container, spray the foam into the inner wall of the container, not to the burning liquid, and from upwind. When the fire is caused by spill of liquid, spray it to the front fire until the spill is covered thoroughly, and from upwind.
Specific Safety Equipment	: For fires in relatively closed areas, the fire fighters must be equipped with Self Contained Breathing Apparatus (SCBA)
Explosion and Fire Hazards	: These hazards occur in unprotected storage tanks
Flash Point	: 100° F or 38° C (Minimum)
Flamable Limits	: LEL 0.7 %, UEL 5 %
NFPA Hazard ID	: Flammability : 2, Unstabilty : 1
Hazardous Material Decomposition	: Carbon Monoxide

6. SPILL AND LEAKAGE HANDLING METHODS	
Notification Procedure	: Notify the authority promptly about the occurrence of the spills, in accordance with the determined local authorization when the spills are suspected to contaminate the water channel. Put away all conditions that can enable the occurrence of
Spill or Leakage Procedure	: ignition. Adsorb the spill by using adsorbent, sawdust mixed with clay and other fire inhibitor materials. Clean and dispose it at the determined place of disposal according to the local regulation. Prevent the entrance of the spill into the water ditches, Disposal channels, or its seepage into the soil.
Environmental Prevention	:

7. PRECAUTIONS FOR HANDLING AND STORAGE	
Handling	: When absorbed by skin, it will cause serious effect. Avoid the vapor or mist from being inhaled. Portable containers for storage must be placed on the ground and the nozzle must be attached to the container to prevent static electricity.
Storage	: store in closed container or tank with free vent breathing. Flammable atmosphere can be formed on top of the storage tank, although it is stored below flash point. Keep away from combustible materials.

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8. CONTROL MEASURES/PERSONAL SAFETY EQUIPMENT	
Ventilation	: When Avtur is used in a relatively closed to room a local exhaust ventilation must be provided. Ventilation and the equipment used must be explosion proof.
Breathing Protection	: Use breathing apparatus when the polluted concentration in the air is Higher than the permissible Threshold Limit Value.
Eye Protection	: Use chemical type goggles
Skin Protection	: latex or Nitrile coated gloves. Apply Good Personal Hygiene Practice
Threshold Limit Value	: 500 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	: Pale straw. Liquid
Odour	: Hydrocarbon
pH	: Data not available
Initial Boiling Point and Boiling Range	: 150 – 300 °C / 302 -572 °F
Freezing/melting Point	: Data not available
Flash Point	: < 38 °C
Lower/upper Flammability or explosion limits	: 1.0 – 6.0 % vol
Auto Ignition Temperature	: > 220 °C
Vapour Pressure	: < 0.1 hPa at 20 °C
Specific gravity	:
Density	: 775 Kg/L - 840 Kg/L at 15 °C
Solubility in other solvents	: Data not available
n- octanol/water partition coefficient (low Pow)	: 2-6
Kinematic viscosity	: 1 – 2 mm2/s at 40 °C
Vapour Density (air=1)	: Data not available

10. REACTIVITY DATA	
Thermal and light stability.	: Stable
Conditions that should be avoided	: Heat, flame, ignition or conditions that can cause static electricity
Inappropriate materials that should be avoided	: Halogen, strong acid, base, and strong oxidation
Decomposition of hazardous materials	: Carbon monoxide
Polymerization of hazardous material formation	: Does not exist

11. TOXICOLOGY DATA	
-----SUBCHRONIC TOXICOLOGY -----	
Experiments are conducted towards mice with exposure through skin for five days a week for 90 days with exposure dosage presumably higher than normal conditions. During the experiments, the effect to the internal parts of the body and the clinical chemical body liquid were observed. It turned out that this product has no bad effect.	
-----REPRODUCTION TOXICOLOGY-----	

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Exposure through the skin of pregnant mice at representative dosage does not give bad effect to the mother mice and to their descendants.

-----CHRONIC TOXICOLOGY -----

Base oil which is contained in this product is refined and hydro treated solvent. A study conducted by rubbing this product on the mice skin does not show carcinogenic effect

-----OTHER TOXICOLOGY DATA -----

Laboratory experiments show that exposure to this product after handling gasoline will cause carcinogenic activity on the skin, especially when the contacted part is not washed thoroughly. However, exposure to this product after handling diesel oil will give no carcinogenic effect.

12. ECOLOGY INFORMATION

Environmental effects and damage : Seepage of this substance to the soil can contaminate soil water or aquifer.

13. DISPOSAL CONSIDERATION

Effluent Disposal : can be burned in the incinerator.
Regulation Information : This product can be categorized as Hazardous Material, and its disposal must accord with the regulation on effluent disposal of Hazardous Material.

14. TRANSPORTATION INFORMATION

USA DOT	
SHIPPING NAME	: Fuel, aviation, turbine engine
HAZARD CLASS & DIV	: COMBUSTIBLE LIQUID
ID/UN NUMBER	: 1863
ERG NUMBER	: 128
PACKING GROUP	: PG III
DANGEROUS WHEN WET	: None
POISON	: None
PLACARD	: Flammable
RID/ADR	
HAZARD CLASS	: 3
HAZARD SUB CLASS	: 31 (C)
LABEL	: 3
DANGER NUMBER	: 30
UN NUMBER	: 1863
SHIPPING NAME	: Fuel, aviation, turbine engine
IMO	
HAZARD CLASS & DIV	: 3.3
ID/UN NUMBER	: 1863
PACKING GROUP	: PG III
SHIPPING NAME	: Fuel, aviation, turbine engine
LABEL (s)	: Flammable Liquid
ICAO/IATA	
HAZARD CLASS & DIV	: 3
ID/UN NUMBER	: 1863

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PACKING GROUP	: PG III, PG II, PG I
SHIPPING NAME	: Fuel, aviation, turbine engine
LABEL (s)	: Flammable Liquid

15. REGULATION INFORMATION	
Inventory Status	: Registered in TSCA, EINECS/ELINCS and AICS.
ECC labeling	: None
Symbol	: Xn = Harmful, F= Flammable
Risk Phrase(s)	: R10-22-38-52/53 Highly flammable. Toxic when swallowed. It can cause irritation to the skin. Hazardous for water life
Safety Phrase(s) :	: S43-24-62-61. Avoid contact with the skin

16. OTHER INFORMATION	
WARNING LABEL :	
<ul style="list-style-type: none">• CONTENT : Aromatic Petroleum Oil -----> DANGEROUS• Do not contact it with skin• Combustible	
THE PRODUCT CAN CAUSE SKIN CANCER, DAMAGE TO LIVER AND BLOOD COMPONENTS.	
<ul style="list-style-type: none">• The product condition and its usage appropriateness is not our responsibility. All risks during usage are under the users' responsibility. This material safety data sheet (MSDS) must be owned and obeyed by the users and the product handlers. Changing this MSDS is strictly prohibited without legal agreement.	