SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	**JET A-1**
Chemical Name	Kerosine (petroleum)
CAS No	8008-20-6
EC No	232-366-4

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

Identified uses It used as fuel for passenger aircraft turbine.

1.3. Details of the supplier of the safety data sheet

Supplier **Akpet Gaz A.Ş.**

Akatlar Mahallesi, Ebululla Mardin Caddesi
No: 22 Maya Park Tower I, 34335
Beşiktaş / İstanbul / Turkey
Tel: +90 212 376 66 00
www.lukoil.com.tr
e-mail: info@lukoil.com.tr

Contact Person HSE Manager

1.4. Emergency telephone number

LUKOIL: +90 444 45 85 (7/24)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 3 - H226
Human health	Skin Irrit. 2 - H315; Asp. Tox. 1 - H304
Environment	Aquatic Chronic 2 - H411

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

CAS No: 8008-20-6

Signal Word Danger

Hazard Statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P243	Take precautionary measures against static discharge.
P273	Avoid release to the environment.
P260	Do not breathe vapours.
P280	Wear protective gloves.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P331	Do NOT induce vomiting.
P370+378	In case of fire: Use foam, carbon dioxide or dry powder for extinction.
P501	Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.
May cause irritation the eyes temporarily.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Name	EC No.	CAS No.	Content	Classification (EC 1272/2008)
Kerosine (petroleum); Straight run kerosine	232-366-4	8008-20-6	%100	Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

The Full Text for all hazard statements are displayed in section 16.

Composition Comments
The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information
General first aid, rest, warmth and fresh air. Get medical attention if any discomfort continues.

Inhalation
Move into fresh air and keep at rest. Rinse nose and mouth with water. If necessary, should be applied artificial respiration and heart massage. If there should be given oxygen. Get medical attention if any discomfort continues.

Ingestion
Immediately rinse mouth. Keep person under observation. Do not induce vomiting.
If vomiting occurs, keep head low. Transport immediately to hospital and bring along these instructions.

Skin contact
Immediately remove contaminated clothing. Wash off promptly and flush contaminated skin with water.
Promptly remove clothing if soaked through and flush skin with water.
Large quantities: Remove contaminated clothing. Flush skin thoroughly with water. Get medical attention if any discomfort continues.

Eye contact
Make sure to remove any contact lenses from the eyes before rinsing.
Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention promptly if symptoms occur after washing.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

4.2. Most important symptoms and effects, both acute and delayed

Inhalation : Upper respiratory irritation, cough.
Ingestion : Nausea, vomiting, diarrhea.
Skin contact : May cause redness and irritation.
Eye contact : Eye irritation, redness, lacrimation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media
Use: Alcohol resistant foam. Carbon dioxide (CO_2). Dry chemicals, sand, earth, water mist.
Unsuitable extinguishing media DO NOT use water jet.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards
Vapours may form explosive mixtures with air.
Vapor is heavier than air so that it can leaking to sewer system and may reach to further ignition sources.

Specific hazards
In case of fire, may occur toxic vapors / gases.
The fire produce follow: Carbon monoxide (CO). Carbon dioxide (CO_2).

5.3. Advice for firefighters

Special Fire Fighting Procedures
Dike and collect extinguishing water.
Keep away all non-emergency personnel from fire area.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Fires in enclosed places should be extinguished by trained personnel wearing protective clothing and an oxygen mask.

Protective equipment for fire-fighters
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.
Do not smoke, use open fire or other sources of ignition. Provide adequate ventilation.
In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Avoid discharge to the aquatic environment.
Vapor is heavier than air so that it can leaking to sewer system and may reach to further ignition sources.
Inform the relevant authorities in case of seepage large quantity into water resources.

6.3. Methods and material for containment and cleaning up

Keep all ignition sources away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers.
Spilled liquid will evaporate completely in enclosed area so that adequate ventilation must be done and should be entered with protective clothing after measurement.
Large spills should be extinguished by using foam and must remain in foam cover until danger is over.
Recollecting the spilled product should be done by qualified personnel.
Barrier should be used to prevent the spread when poured into water and product should be recollected on the water surface.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

6.4. Reference to other sections

For personal protection, see section 8.
See section 11 for additional information on health hazards.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Use appropriate goggles and gloves. Keep away from heat, sparks and open flame.
During application and drying, solvent vapours will be emitted. Do not eat, drink or smoke when using the product.
Container must be kept tightly closed. It should not be drawn into mouth.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.
Keep away from food, drink and animal feeding stuffs. Protect against physical damage and/or friction.
It should be stored in tanks designing according to the product.
If the product contacts with hot surfaces there are ignition or explosion hazards.
Storage tanks should be labeled and should be kept closed when out of use.
Do not remove the warning signs since some products may be present in empty tanks.
Despite the possibility of the empty tanks containing product vapor should not be done cutting, welding, soldering processes.
If the concentration of hydrocarbon vapor is more than 1%, oxygen concentration is less than 20% in the tank should not be entered without oxygen mask.
There is possibility of ignition vapour of product are collected in the storage tanks. Therefore, static electricity must be discharged.
Measures should be taken against the igniton source while filling and discharge.
Equipments such as pumps etc. must be earthed or transmission cables must be connected each other by a cable to avoid accumulation of static electiricity.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
Kerosine (Petroleum); Straight run kerosine	OEL		500 mg/m³		1000 mg/m³	

OEL = Occupational Exposure Limit.

8.2. Exposure controls

Protective equipment

Process conditions
Provide eyewash, quick drench.

Engineering measures
Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment
Appropriate respiratory equipment should be used when the possibility of exposure to hydrocarbon vapor.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

Hand protection
For prolonged or repeated skin contact use suitable protective gloves.

Eye protection
Wear approved safety goggles.
The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Hygiene measures
Promptly remove non-impervious clothing that becomes contaminated. When using do not eat, drink or smoke.
Wash hands after contact. Wash promptly if skin becomes contaminated.

Skin protection
Protective clothing should be worn. Anti-static and flame-retardant protective clothing is recommended to wear.

Environmental Exposure Controls
Please act in accordance with local and national laws.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Identifier	Unit	Value	Test method
Appearance		Liquid	
Colour		Colorless	
Odour		Smell of kerosene	
Density, 15 °C	kg/m^3	775-840	ASTM D 1298 or D 4052
Flash Point	°C	Min.38	ASTM D 3828 or D 56
Freezing point	°C	Min.-47	ASTM D 2386 or D 5972
Sulfur	% volume	Max.0,3	ASTM D 1266
Aromatics	% volume	Max.25	ASTM D 1319

9.2. Other information

No information required.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Will not polymerise.

10.4. Conditions to avoid

Should be kept away from sources of ignition.

10.5. Incompatible materials

Materials To Avoid
Avoid contact with strong reducing agent (oxidizing).

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Serious eye damage / irritation
May cause irritation.

Skin corrosion/irritation
Causes skin irritation.

Skin and respiratory sensitivity
No data available.

Germ cell mutagenicity:
Genotoxicity - In Vitro/ In Vivo
No data available.

Carcinogenicity:
No data available.

Reproductive Toxicity – Fertility/ Development
No data available.

Specific target organ toxicity - single exposure:
No information required.

Specific target organ toxicity - repeated exposure:
No information required.

Aspiration hazard
May be fatal if swallowed and enters airways.

Inhalation
In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Ingestion
It is harmful if swallowed in small doses. If swallowed a greater amount causes nausea and diarrhea. If exceed to lungs damages during vomiting

Skin contact
Irritant. May cause skin dryness or cracking.

Eye contact
May cause temporary eye irritation. Visual disturbances including blurred vision.
In case of accidentally eye contact causes temporary blindness.

KEROSINE (PETROLEUM); STRAIGHT RUN KEROSINE (CAS: 8008-20-6)

Toxic Dose 1 - LD 50	>2500 mg/kg	(oral - rat)
Toxic Dose 2 - LD 50	>2000 mg/kg	(dermal - rabbit)
Toxic Conc. - LC 50	>5.28 mg/l 4h	(inhalation - rat)

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Spillages prevent the transfer of oxygen by forming a film layer on the water surface.

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

12.2. Persistence and degradability

This product is soluble in the soil without harming the environment.

12.3. Bioaccumulative potential

There is no evidence that accumulating in the soil.

12.4. Mobility in soil

Mobility: The product may spread in water systems. Spilled product causes pollution of underground waters.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Should not be released to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Disposed of as hazardous waste. Waste must be treated as the product itself.

13.1. Waste treatment methods

Empty containers, dispose of waste and residues in accordance with local authority requirements.
Environmental manager must be informed of all major spillages.
Make sure containers are empty before discarding. Empty containers must not be burned because of explosion hazard.
Please recycle empty pack. Do not re-use empty containers.
Some products may remain in empty containers. Do not perform heat treatment without erased or removed danger signs or labels from empty containers.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1863
UN No. (IMDG)	1863
UN No. (ICAO)	1863

14.2. UN proper shipping name

Proper Shipping Name	FUEL, AVIATION, TURBINE ENGINE

14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	

LUKOIL

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-E, S-E
ADR transport category	3
Emergency Action Code	3Y
Hazard No. (ADR)	30
Tunnel Restriction Code	(D/E)
Limited quantities	5 L

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

UK Regulatory References
Chemicals (Hazard Information & Packaging) Regulations.
Fire precautions Act 1971.

Environmental Listing
No listing noted.

Statutory Instruments
Export of Dangerous Chemicals Regulations.

Approved Code Of Practice
Safety Data Sheets for Substances and Preparations.

Guidance Notes
Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

EU Legislation
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SAFETY DATA SHEET

JET A-1

According to Regulation (EU) No 2015/830

SECTION 16: OTHER INFORMATION

Abbreviations used in safety data sheet

ADR: European Agreement on International Carriage of Dangerous Goods by Road.
ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement on International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
TWA: Time weighted average
ATE: Estimated value of acute toxicity
EC No: European Community number
CAS: Chemical Theory Service.
LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
LC50: Substance concentration causing 50% (half) death in the test animals group.
EC50: Effective Concentration of the substance causing the maximum of 50%.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Permanent, Very Biofriendly.
SEA: Classification, labeling, packaging regulation
DNEL: Derivative Inactive Level
PNEC: Estimated Unaffected Concentration
BHOT: Specific Target Organ Toxicity

Information Sources

This SDS is written based on the information received from rawmaterial supplier.
European Chemicals Agency (ECHA)

Revision Comments

This form is designed for the first time for this product.

Hazard Statements In Full

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.

Issued By

Bülent Özdemir / CRAD
gbf@crad.com.tr

Issued Note

The certificate information is used exclusively for this SDS. No changes can be made to this SDS without the knowledge and approval of the certificate holder or the certificate information can not be used for another SDS. Otherwise, the certificate will assume no responsibility for the owner SDS.

This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect preapared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product owner.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.