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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier


Product form	: Substance
Trade name/designation	: Jet A-1
Chemical name	: Kerosene (petroleum)
EC Index	: 649-404-00-4
EC-No.	: 232-366-4
CAS-No.	: 8008-20-6
REACH registration No	: 01-2119485517-27-0138
Product group	: Trade product

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture	: Fuels : Aviation use Further information: see exposure scenarios attached to this safety data sheet.
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Title	Use descriptors
Use as an intermediate (ES Ref.: 02)	SU8, SU9, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC15, ERC6a, ESVOC SPERC 6.1a.v1
Distribution of substance (ES Ref.: 03)	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1
Uses in coatings (ES Ref.: 05)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC10, PROC13, PROC15, ERC4, ESVOC SPERC 4.3a.v1
Industrial use in cleaning agents (ES Ref.: 08)	PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC10, PROC13, ERC4, ESVOC SPERC 4.4a.v1
Lubricants (ES Ref.: 11)	PROC1, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, PROC18, ERC4, ERC7, ESVOC SPERC 4.6a.v1
Metal working fluids / rolling oils (ES Ref.: 16)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC17, ERC4, ESVOC SPERC 4.7a.v1
Use as binders and release agents (ES Ref.: 18)	PROC1, PROC2, PROC3, PROC4, PROC6, PROC7, PROC8b, PROC10, PROC13, PROC14, ERC4, ESVOC SPERC 4.10a.v1
Use as a fuel in industrial settings (ES Ref.: 22)	PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16, ERC7, ESVOC SPERC 7.12a.v1
Functional fluids (ES Ref.: 25)	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, ERC7, ESVOC SPERC 7.13a.v1
Uses in coatings (ES Ref.: 06)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19, ERC8a, ERC8d, ESVOC SPERC 8.3b.v1
Professional use in cleaning agents (ES Ref.: 09)	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC10, PROC11, PROC13, ERC8a, ERC8d, ESVOC SPERC 8.4b.v1
Lubricants: Low environmental release (ES Ref.: 12)	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20, ERC9a, ERC9b, ESVOC SPERC 9.6b.v1
Lubricants: High environmental release (ES Ref.: 13)	PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, PROC18, PROC20, ERC8a, ERC8d, ESVOC SPERC 8.6c.v1
Metal working fluids / rolling oils (ES Ref.: 17)	PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC17, ERC8a, ERC8d, ESVOC SPERC 8.7c.v1
Use as binders and release agents (ES Ref.: 19)	PROC1, PROC2, PROC3, PROC4, PROC6, PROC8a, PROC8b, PROC10, PROC11, PROC14, ERC8a, ERC8d, ESVOC SPERC 8.10b.v1
Use in agrochemicals (ES Ref.: 20)	PROC1, PROC2, PROC4, PROC8a, PROC8b, PROC11, PROC13, ERC8a, ERC8d, ESVOC SPERC 8.11a.v1

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Title	Use descriptors
Use as a fuel in professional settings (ES Ref.: 23)	PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16, ERC9a, ERC9b, ESVOC SPERC 9.12b.v1
Road and construction applications (ES Ref.: 26)	PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, ERC8d, ERC8f, ESVOC SPERC 8.15.v1
Explosives manufacture & use (ES Ref.: 27)	PROC1, PROC3, PROC5, PROC8a, PROC8b, ERC8e
Uses in coatings (ES Ref.: 07)	PC1, PC4, PC5, PC9a, PC9b, PC9c, PC10, PC15, PC18, PC23, PC24, PC31, PC34, ERC8a, ERC8d, ESVOC SPERC 8.3c.v1
Use in cleaning agents (ES Ref.: 10)	PC3, PC4, PC8, PC9a, PC24, PC35, PC38, ERC8a, ERC8d, ESVOC SPERC 8.4c.v1
Lubricants: Low environmental release (ES Ref.: 14)	PC1, PC24, PC31, ERC9a, ERC9b, ESVOC SPERC 9.6d.v1
Lubricants: High environmental release (ES Ref.: 15)	PC1, PC24, PC31, ERC8a, ERC8d, ESVOC SPERC 8.6e.v1
Use in agrochemicals (ES Ref.: 21)	PC12, PC27, ERC8a, ERC8d, ESVOC SPERC 8.11b.v1
Use as a fuel (ES Ref.: 24)	PC13, ERC9a, ERC9b, ESVOC SPERC 9.12c.v1
Formulation & (re)packing of substances and mixtures (ES Ref.: 04)	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2, ESVOC SPERC 2.2.v1

Full text of use descriptors: see section 16

### 1.2.2. Uses advised against

No data available

### 1.3. Details of the supplier of the safety data sheet

Trafigura Ventures V.B.V.  
 Evert van de Beekstraat 1-82  
 The Base, Tower B - 5th Floor  
 1118 CL Schiphol - The Netherlands  
 T +31 20 504 1800  
[TrafiguraReach@trafigura.com](mailto:TrafiguraReach@trafigura.com)

### 1.4. Emergency telephone number

Emergency number : +32 3 575 03 30  
 This telephone number is available 24 hours per day, 7 days per week.


Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3      H226  
 Skin Irrit. 2      H315

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Asp. Tox. 1            H304  
 Aquatic Chronic 2   H411  
 STOT SE 3            H336

Full text of H statements : see section 16

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word :

Danger

Hazard statements (CLP) :

H226 - Flammable liquid and vapour.  
 H304 - May be fatal if swallowed and enters airways.  
 H315 - Causes skin irritation.  
 H336 - May cause drowsiness or dizziness.  
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P102 - Keep out of reach of children.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P273 - Avoid release to the environment.  
 P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
 P301+P310+P331 - IF SWALLOWED: Immediately call a doctor, a POISON CENTER. Do NOT induce vomiting.  
 P501 - Dispose of contents/container to an approved waste disposal plant.

Listed in Annex VI :

EC Index-No. : 649-404-00-4

## 2.3. Other hazards


Other hazards :

PBT/vPvB data : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII. This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Comments : UVCB  
 Substance name : Jet A-1  
 CAS-No. : 8008-20-6  
 EC-No. : 232-366-4  
 EC Index : 649-404-00-4

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Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Kerosene (petroleum)	(CAS-No.) 8008-20-6 (EC-No.) 232-366-4 (EC Index) 649-404-00-4 (REACH-no) 01-2119485517-27-0138	100	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

### **3.2. Mixtures**

Not applicable

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

Additional advice	: First aider: Pay attention to self-protection. See also section 8. Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance.
Inhalation	: Keep at rest. Provide fresh air. Give oxygen or artificial respiration if necessary. Call a physician immediately. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.
Skin contact	: Take off immediately all contaminated clothing. Wash with plenty of water/. In case of doubt or persistent symptoms, consult always a physician. Wash contaminated clothing before reuse.
Eyes contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Ingestion	: Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Get medical advice/attention.

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

Inhalation	: May cause respiratory irritation. Cough. Effects of breathing high concentrations of vapour may include: headache, nausea, dizziness.
Skin contact	: Irritating to skin. The following symptoms may occur: erythema (redness). May be absorbed through the skin.
Eyes contact	: Contact with eyes may cause irritation. The following symptoms may occur: erythema (redness).
Ingestion	: Harmful: may cause lung damage if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.


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

Treat symptomatically. Symptoms may be delayed.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

Suitable extinguishing media	: Water spray, Alcohol resistant foam, Carbon dioxide, Dry extinguishing powder.
Unsuitable extinguishing media	: Strong water jet.

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## **5.2. Special hazards arising from the substance or mixture**

- Specific hazards : Vapours may form explosive mixture with air. Vapours are heavier than air and may spread along floors. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. On heating there is a risk of a build-up of pressure in hermetically sealed containers or tanks. Do not allow run-off from fire-fighting to enter drains or water courses.
- Hazardous decomposition products in case of fire : Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Organic compounds. nitrogen oxides (NOx) and sulphur oxides.

## **5.3. Advice for firefighters**

- Firefighting instructions : Special protective equipment for firefighters. . In case of fire: Wear self-contained breathing apparatus. Use water spray or fog for cooling exposed containers. Evacuate personnel to a safe area. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **6.1.1. For non-emergency personnel**

- For non-emergency personnel : Evacuate personnel to a safe area. Stay upwind/keep distance from source. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin and eyes. Do not breathe vapour/aerosol. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof equipment. Use only non-sparking tools. Ensure equipment is adequately earthed.

#### **6.1.2. For emergency responders**

- For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

### **6.3. Methods and material for containment and cleaning up**

- Methods for cleaning up : Stop leak if safe to do so. Dam up. Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone. Collect in closed and suitable containers for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Dispose of as special waste in compliance with local and national regulations. Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases. Take up large spills with pump or vacuum.


### **6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

- Additional hazards when processed : Hydrogen sulfide.
- Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapour/aerosol. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take any precaution to avoid mixing with combustibles... See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains.

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Hygiene measures : Keep good industrial hygiene. When using do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling of the product. Take off contaminated clothing. Separate working clothes from town clothes. Keep away from food, drink and animal feedingstuffs.

**7.2. Conditions for safe storage, including any incompatibilities**

Technical measures : Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Packaging materials : Keep only in the original container.

**7.3. Specific end use(s)**

see attached exposure scenario.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**


<b>Jet A-1 (8008-20-6)</b>		
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> Non-aerosol
<b>Kerosene (petroleum) (8008-20-6)</b>		
Belgium	Limit value (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> (application limited to exposure conditions to negligible aerosols-total hydrocarbon vapor)
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	300 mg/m <sup>3</sup>
Poland	NDS (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
Poland	NDSch (mg/m <sup>3</sup> )	300 mg/m <sup>3</sup>
Portugal	OEL TWA (ppm)	200 ppm (restricted to conditions in which there are negligible aerosol exposures)
Spain	VLA-ED (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> (aviation fuel)
USA - ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	200 mg/m <sup>3</sup> (application restricted to conditions in which there are negligible aerosol exposures-total hydrocarbon vapor)
USA - NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>

<b>Jet A-1 (8008-20-6)</b>	
DNEL/DMEL (general population)	
Long-term - systemic effects,oral	19 mg/kg bodyweight/day
PNEC (additional information)	
Additional information	Substance of unknown or variable composition, complex reaction products or biological material (UVCB). No data available

<b>Kerosene (petroleum) (8008-20-6)</b>	
DNEL/DMEL (general population)	
Long-term - systemic effects,oral	19 mg/kg bodyweight/day

**8.2. Exposure controls**

Engineering measure(s) : Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Take precautionary measures against static discharge. Use only explosion-proof equipment. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7.


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Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection	: rubber gloves. -. NBR (Nitrile rubber) (EN 374). The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves. Material thickness: 0,54mm. Breakthrough time : >360min. The data about break through time/strength of material are standard values! The exact break throughtime/strength of material depends on the exposure time. The corresponding protection class is to be obtained from the producer of the protective glove.
Eye protection	: Safety glasses (EN166). face shield
Body protection	: Overalls, apron and boots recommended. (EN 11612, EN 1149). Wear flame-resistant antistatic protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). Full face mask (EN 136). Filter type: AP (EN 141). Use self-contained respiratory apparatus for rescue and maintenance work in storage vessels. (EN 137)
Thermal hazard protection	: Not required for normal conditions of use. Use dedicated equipment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear to pale yellow liquid.
Colour	: Colourless to light yellow.
Odour	: petroleum hydrocarbon odour.
Odour threshold	: No data available
pH	: NA: UVCB
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: -47 °C
Freezing point	: No data available
Initial boiling point and boiling range	: 150 - 300 °C
Flash point	: 38 °C
Auto-ignition temperature	: 227 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable, liquid
Vapour pressure	: < 0,48 mm Hg @20°C
Vapour density	: 4,5 (Air=1)
Relative density	: 0,775 - 0,84 (@ 15°C)
Solubility	: Insoluble.
Partition coefficient n-octanol/water	: > 3
Kinematic viscosity	: 1 - 2 cPs (@ 40°C)
Dynamic viscosity	: No data available
Explosive properties	: Not applicable.
Oxidising properties	: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

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Explosive limits : 0,7 - 7 %  
0,7  
7

### 9.2. Other information

VOC content : 100 %  
Other properties : Percent volatile : 100%. Pour point : -40°C.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Flammable liquid. Reference to other sections: 10.5.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. See also section 7. Handling and storage.

### 10.5. Incompatible materials

oxidising substances. Strong acids. See also section 7. Handling and storage.

### 10.6. Hazardous decomposition products

Burning produces noxious and toxic fumes. Hazardous decomposition products COx.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

<b>Jet A-1 (8008-20-6)</b>	
LD50/oral/rat	> 5000 mg/kg OECD Test Guideline 401
LD50/dermal/rabbit	> 2000 mg/kg OECD 434
LC50/inhalation/4h/rat	> 5200 mg/m <sup>3</sup> OECD Test Guideline 403
<b>Kerosene (petroleum) (8008-20-6)</b>	
LD50/oral/rat	> 5000 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg
LC50/inhalation/4h/rat	> 5,28 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

OECD Test Guideline 404

pH: NA: UVCB

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)

Draize Test

pH: NA: UVCB

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

OECD Test Guideline 406


Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Test Method OECD 475, 478, 479

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

OECD Test Guideline 451



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Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)  
 OECD 421  
 OECD 422

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

<b>Jet A-1 (8008-20-6)</b>	
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight/day

Aspiration hazard : May be fatal if swallowed and enters airways.

<b>Jet A-1 (8008-20-6)</b>	
Kinematic viscosity	2,9- 12 mm <sup>2</sup> /s @ -20°C

Other information : Symptoms related to the physical, chemical and toxicological characteristics.  
 Reference to other sections: 4.2.

## SECTION 12: Ecological information

### 12.1. Toxicity

Environmental properties : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

<b>Jet A-1 (8008-20-6)</b>	
LC50 fish 1	2 - 5 mg/l OECD Test Guideline 203
EC50 Daphnia 1	1,4 mg/l OECD Test Guideline 202
ErC50 (algae)	1 - 3 mg/l OECD Test Guideline 201
NOEC (chronic)	daphnia 0,48 mg/l (NOEL)
NOEC chronic fish	0,98 mg/l (NOEL)

### 12.2. Persistence and degradability

<b>Jet A-1 (8008-20-6)</b>	
Persistence and degradability	Inherently biodegradable.

### 12.3. Bioaccumulative potential

<b>Jet A-1 (8008-20-6)</b>	
Partition coefficient n-octanol/water	> 3
Bioaccumulative potential	Low potential.

### 12.4. Mobility in soil

<b>Jet A-1 (8008-20-6)</b>	
Ecology - soil	Low potential.

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Handle with care. Safe handling: see section 7. Handling and storage. Refer to manufacturer/supplier for information on recovery/recycling. Collect and dispose of waste product at an authorised disposal facility. Dispose of contaminated materials in accordance with current regulations.

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Additional information : Never use pressure to empty container. Do not burn, or use a cutting torch on the empty drum. Do not puncture or incinerate. Delivery to an approved waste disposal company. Dispose of contaminated materials in accordance with current regulations.

Further ecological information : Do not allow to enter into surface water or drains.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : Classified as hazardous waste according to European Union regulations. Waste codes should be assigned by the user based on the application for which the product was used.  
The following Waste Codes are only suggestions:  
13 07 03\* - other fuels (including mixtures)  
15 01 10\* - packaging containing residues of or contaminated by dangerous substances .

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
1863	1863	1863	1863	1863
<b>14.2. UN proper shipping name</b>				
FUEL, AVIATION, TURBINE ENGINE	FUEL, AVIATION, TURBINE ENGINE	Fuel, aviation, turbine engine	FUEL, AVIATION, TURBINE ENGINE	FUEL, AVIATION, TURBINE ENGINE
<b>Transport document description</b>				
UN 1863 FUEL, AVIATION, TURBINE ENGINE, 3, III, (D/E)	UN 1863 FUEL, AVIATION, TURBINE ENGINE, 3, III	UN 1863 Fuel, aviation, turbine engine, 3, III	UN 1863 FUEL, AVIATION, TURBINE ENGINE, 3, III	UN 1863 FUEL, AVIATION, TURBINE ENGINE, 3, III
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
ADN : N2				

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : F1  
Special provisions : 363, 664  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T2  
Portable tank and bulk container special provisions (ADR) : TP1

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Tank code (ADR) : LGBF  
 Vehicle for tank carriage : FL  
 Transport category (ADR) : 3  
 Special provisions for carriage - Packages (ADR) : V12  
 Special provisions for carriage - Operation (ADR) : S2  
 Hazard identification number (Kemler No.) : 30  
 Orange plates :



Tunnel restriction code : D/E  
 EAC code : 3YE

**- Transport by sea**


Special provisions (IMDG) : 223, 363  
 Limited quantities (IMDG) : 5 L  
 Excepted quantities (IMDG) : E1  
 Packing instructions (IMDG) : P001, LP01  
 IBC packing instructions (IMDG) : IBC03  
 Tank instructions (IMDG) : T2  
 Tank special provisions (IMDG) : TP1  
 EmS-No. (Fire) : F-E  
 EmS-No. (Spillage) : S-E  
 Stowage category (IMDG) : A  
 Properties and observations (IMDG) : Immiscible with water.

**- Air transport**

PCA Excepted quantities (IATA) : E1  
 PCA Limited quantities (IATA) : Y344  
 PCA limited quantity max net quantity (IATA) : 10L  
 PCA packing instructions (IATA) : 355  
 PCA max net quantity (IATA) : 60L  
 CAO packing instructions (IATA) : 366  
 CAO max net quantity (IATA) : 220L  
 Special provisions (IATA) : A3  
 ERG code (IATA) : 3L

**- Inland waterway transport**

Classification code (ADN) : F1  
 Special provisions (ADN) : 363  
 Limited quantities (ADN) : 5 L  
 Excepted quantities (ADN) : E1  
 Carriage permitted (ADN) : T  
 Equipment required (ADN) : PP, EX, A  
 Ventilation (ADN) : VE01  
 Number of blue cones/lights (ADN) : 0

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#### - Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 363
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : This product is being carried under the scope of MARPOL Annex I Jet fuels, kerosene.

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:


3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Jet A-1 - Kerosene (petroleum)
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Jet A-1 - Kerosene (petroleum)
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Jet A-1 - Kerosene (petroleum)
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Jet A-1 - Kerosene (petroleum)
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Jet A-1 - Kerosene (petroleum)

Jet A-1 is not on the REACH Candidate List

Jet A-1 is not on the REACH Annex XIV List

VOC content : 100 %

##### 15.1.2. National regulations

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#### France

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
4510.text	Dangereux pour l'environnement aquatique de catégorie aiguë 1 ou chronique 1.		
4510.1	La quantité totale susceptible d'être présente dans l'installation étant : 1. Supérieure ou égale à 100 t Quantité seuil bas au sens de l'article R. 511-10 : 100 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	A	1
4510.2	La quantité totale susceptible d'être présente dans l'installation étant : 2. Supérieure ou égale à 20 t mais inférieure à 100 t Quantité seuil bas au sens de l'article R. 511-10 : 100 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	DC	

#### Germany

Reference to AwSV : Water hazard class (WGK) 2, significant hazard to waters  
Risk classification according to VbF : A II - Liquids with a flashpoint between 21°C and 55°C  
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

Waterbezwaarlijkheid : 2 - Toxic to aquatic organisms A (2)  
SZW-lijst van kankerverwekkende stoffen : Jet A-1 is listed  
SZW-lijst van mutagene stoffen : Jet A-1 is listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Class for fire hazard : Class II-1  
Store unit : 5 liter  
Classification remarks : R10 <H226;H304;H315;H336;H411>; Emergency management guidelines for the storage of flammable liquids must be followed  
Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product


#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out

#### **SECTION 16: Other information**

Indication of changes:

1		Modified	
2		Modified	
5		Modified	
9		Modified	
15		Modified	

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16		Modified	
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Abbreviations and acronyms:


	DNEL = Derived No Effect Level
	DMEL = Derived Minimal Effect level
	PNEC = Predicted No Effect Concentration
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	TWA = time weighted average
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	NOEL = no-observed-effect level
	NOEC = No observed effect concentration
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	EWC = European waste catalogue
	NA = Not applicable
	N.O.S. = Not Otherwise Specified
	VOC = Volatile organic compounds
	Quantitative structure-activity relationship (QSAR)
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)
	ABM = Algemene beoordelingsmethodiek
	STOT = Specific Target Organ Toxicity
	BTT = Breakthrough time (maximum wearing time)

Sources of key data used to compile the datasheet : European Chemicals Bureau; CSR.

Training advice : Manipulations are to be done only by qualified and authorised persons. Training staff on good practice.

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment - chronic hazard category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

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Classification according to Regulation (EC) No. 1272/2008 [CLP]  
 Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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