

U. S. OIL & REFINING CO.

M A T E R I A L S A F E T Y D A T A S H E E T

JET FUEL

G012

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U. S. OIL & REFINING CO.
3001 Marshall Ave.
Tacoma, WA 98421

EMERGENCY ASSISTANCE:
COMPANY: (253) 383-1651
CHEMTREC: (800) 424-9300

IMPORTANT: Read this MSDS before handling or disposing of this product.
Pass this information on to employees, customers and product users.

1. GENERAL

Product Name: Jet Fuel
Other Names: Jet Fuel, Kerosene, Jet A (212110), Jet A-1 (212212), Jet A-1 (50) (212211), JP-8 (212130)

Chemical Family: Hydrocarbon
Generic Name: Petroleum Distillate Fuel
DOT Shipping Name: Fuel, Aviation, Turbine Engine, 3, UN1863, III

NFPA Hazard Rating: HEALTH: 0
FIRE: 2
REACTIVITY: 0
SPECIAL:

2. PRODUCT COMPONENTS

Component	CAS Number	Percent
Hydrocarbons with a boiling point Range of 148°C to 293°C	8008-20-6	100 (AP)

3. OCCUPATIONAL EXPOSURE LIMITS

Substance	Value	Time/Type	Date	Source
Stoddard Solvent	500 ppm	8 Hr PEL	2003	OSHA
(see section 11)	60 ppm	8 Hr REL	2003	NIOSH
Naphthalene	10 ppm	8 Hr TWA	2003	OSHA
	15 ppm	STEL	2003	NIOSH

4. HEALTH INFORMATION

Summary: Liquid, mist of or vapors can cause eye, skin and respiratory tract irritation. Ingestion of liquid and aspiration into the lungs can result in chemical pneumonia.

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Routes of Exposure

Signs and Symptoms

Inhalation	Vapors or mists from this material can irritate the nose, throat, and lungs, and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure.
Eye Contact	Eye irritation may result from contact with liquid, mists, and/or vapors.
Skin Contact	Skin irritation leading to dermatitis may occur upon prolonged or repeated contact.
Ingestion	This material can irritate the mouth, throat, stomach, and cause nausea, vomiting, diarrhea and restlessness. Aspiration into the lungs will cause chemical pneumonia.

Overexposure

Effects:

Supplemental Information:

This product contains petroleum distillates similar to those shown to produce skin tumors on laboratory animals. Avoid prolonged or repeated skin contact.

Caution is recommended for pre-existing central nervous system diseases. Personnel with pre-existing central nervous system disease, skin disorders, or chronic respiratory diseases should avoid exposure to this product.

5. FIRE AND EXPLOSION

Flash Point (Method): AP 38°C (D-93, D-56)

Autoignition Temperature (Method): AP 210°C (E-659)

Flammable Limits (% Vol. in air) LOWER: AP 0.7
at Normal Atmospheric Temperature UPPER: AP 5.0
and Pressure

Unusual Fire and Explosion Hazards:

Moderately combustible! This material will release flammable vapors which if exposed to an ignition source can burn in the open or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below the normal flash point.

Extinguishing Media:

Dry chemical, foam, carbon dioxide, halon. Water fog or water spray are of value for cooling, but may not achieve extinguishment.

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Special Firefighting Procedures:

For fires involving this material, do not enter any enclosed fire space without proper protective equipment, including self-contained breathing apparatus. Cool tanks and containers exposed to fire with water.

6. EMPLOYEE PROTECTION

- Respiratory:** This material is not expected to present a respiratory hazard because of its low vapor pressure. But, if excessive mist or vapors result from conditions of use, wear proper NIOSH/MSHA-approved respiratory equipment.
- Ventilation:** Use adequate ventilation to keep vapor concentrations of this material below the occupational exposure limits.
- Eye:** Eye protection (chemical-type goggles and/or face shield) should be worn whenever there is a likelihood of splashing or spraying liquid. Contact lenses should not be worn. Eye wash water should be provided.
- Skin:** Avoid prolonged or repeated skin contact. If conditions or frequency of use present danger of exposure, clean and impervious protective clothing such as gloves, apron, boots, and facial protection should be worn.
- Other:** Use good personal hygiene practices. In case of skin contact, wash with mild soap and water or a waterless hand cleaner. Immediately remove soiled clothing and wash thoroughly before reuse. Discard contaminated shoes.

7. EMERGENCY AND FIRST AID

- Inhalation:** Immediately remove from contaminated area to fresh air. For respiratory distress, give oxygen or administer CPR (cardiopulmonary resuscitation), if necessary. Obtain prompt medical attention.
- Eye Contact:** Flush with clean low-pressure water for at least 15 minutes. If irritation persists, obtain medical attention.
- Skin Contact:** Immediately remove contaminated clothing. Wash affected area thoroughly with soap and water. If irritation persists, seek medical attention. Wash clothing thoroughly before reuse, but discard contaminated leather goods.
- Ingestion:** Do not induce vomiting, since aspiration into the lungs will cause chemical pneumonia. Must obtain medical attention promptly.

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Note to Physician: Personnel with pre-existing skin disorders or chronic respiratory diseases should avoid exposure to this product.

8. SPILL AND DISPOSAL

Actions if Material is Spilled or Leaked:

Notification procedures: Report spills release as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Reponse Center Toll Free Number (800) 424-8802. In case of accident or road spill notify Chemtrec (800) 424-9300.

Procedures if materials are released or spilled: Land spill: Eliminate sources of ignition. Shut off source taking normal safety precautions. Take measures to minimize the effect on ground water. Recover by pumping using explosion-proof equipment or contain spilled liquid with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of absorbed residues as directed in the waste disposal methods discussion.

Water Spill: Eliminate sources of ignition and warn other ships in the vicinity to stay clear. Notify Port and other relevant authorities. Confine with booms if skimming equipment is available to recover the spill. Otherwise disperse in unconfined waters, if permitted by local authorities and environmental agencies.

Environmental Precautions: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

Personal Precautions: Use proper protective equipment.

Waste Disposal Methods:

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by USEPA under RCRA (40CFR2612) or other state and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, Federal law requires disposal at a licensed hazardous waste disposal facility.

9. PHYSICAL AND CHEMICAL DATA

Freezing Point: LT - 59°C

Specific Gravity (H₂O = 1 @ 39.2°F): 0.806 - .829

Viscosity Units, Temp. (Method): AP 1.3-2.2 CST AT 100°F (D-445)

Volatile Characteristics: NA

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Stability: Stable

Other Physical and Chemical Properties: Sulfur content LT 0.3 %,
Aromatics content LT 25 VOL %,
Olefins content LT 5 VOL%.

Appearance and Odor: Water white to light amber colored liquid;
Kerosene odor.

Conditions to Avoid: Heat, sparks, and open flame.

Materials to Avoid: Reacts with strong acids and strong oxidizing
materials.

Hazardous Decomposition Products: Burning or excessive heating may
produce Carbon Monoxide and other harmful gases and vapors
including oxides and/or other compounds of sulfur..

10. SARA TITLE III

Extremely Hazardous Substances for Emergency Response and Planning:

Component	CAS Number	Percent	TPQ(lbs)	RQ(lbs)
none				

Toxic Chemicals for Emission Reporting

Component	CAS Number	Percent (Typical)
Ethylbenzene	100-41-4	0.20 wt%
Xylene (mixed isomers)	1330-20-7	1.1 WT%

EPA Hazard Classification:

Acute Health Hazard: X
Chronic Health Hazard: X
Fire Hazard: X
Pressure Hazard:
Reactive Hazard:
Not Applicable:

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11. ADDITIONAL PRECAUTIONS

Handling & Storage:

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this material is loaded into tanks previously containing gasoline or other low flash point product. (see API publication 2003). Keep containers closed and away from heat and ignition sources. All electrical equipment in areas where product is stored/handled should be installed in accordance with applicable requirements of the National Electric Code, N.F.P.A. Do not use this product as a cleaning agent. Empty containers retain some liquid and vapor residues, and hazard precautions must be observed when handling empty containers.

General Comments:

Materials similar to some components in this product were found to be mutagenic in "in vitro" tests. The exact relationship between these results and possible human effects is not known.

"Petroleum Distillate"--16 CFR 1500.14(B)(3). Use special Federal labeling if intended, or packaged, for use in the household or by children

Specific exposure standards for this material have not been agreed upon; therefore, ACGIH TLV guidelines (see section 3) are suggested for interim use until specific standards are adopted.

Some of the information present and conclusions drawn herein are from sources other than direct test data on the mixture itself.

-----NOTE-----Qualifications

EQ = Equal	AP = Approximately	N/AV = Not Available
LT = Less Than	UK = Unknown	N/AP = Not Applicable
GT = Greater than	TR = Trace	N/DA = No Data

Available

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