# Avjet Holding Inc.

## Safety Data Sheet

**Revision : 2024-01-22**

- **Product :** Aviation Gasoline AVGAS 100LL
- **Manufacturer :** Imperial Esso
- **Distributor :** Avjet Holding Inc.
  900, blvd Lemire
  Drummondville, Quebec, Canada J2C 7W8


- **For information about this SDS :** Avjet Holding Inc 1-819-479-1000
- **Emergency phone numbers :** Canutec (24/7) 1-613-996-6666
  or 1-888-226-8832

- **Recommended use and restrictions of use**

  Aviation gasoline for piston aircraft engines. This product is not to be used as a solvent or cleaning agent, for lighting, to revive fires or as a skin cleanser. Do not use in gasoline engines of automobiles, or any other motorized land equipment.

  **The product is sensitive to temperature variations. Make sure barrels are stored properly to avoid warping. For more information, refer to section 7 of the CSA B836:22 standard.**

**See Appendix for all information on the manufacturer's safety data sheet**

# SAFETY DATA SHEET

AVIATION GASOLINE 100LL

## Section 1. Identification

**Product name** : AVIATION GASOLINE 100LL

**Product description** : Hydrocarbons and Additives

**SDS #** : 3834

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** : Aviation fuel

**Uses advised against** : This product is not recommended for any industrial, professional or consumer use other than the identified uses above.

**Supplier** : Imperial Oil Downstream
P.O. Box 2480, Station M

Calgary, ALBERTA T2P 3M9 Canada

**24-Hour emergency telephone number** : 1-866-232-9563 / (800)424-9300 CHEMTREC

**Product Technical Information** : 1-800-268-3183

**Supplier General Contact** : 1-800-567-3776

**SDS Internet Address** : www.sds.exxonmobil.com

## Section 2. Hazard identification

This material is considered to be hazardous according to regulatory guidelines.

This product has been classified in accordance with hazard criteria of the Hazardous Products Regulations (HPR) SOR/2015-17 and the SDS contains all the information required by the HPR SOR/2015-17.

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

**GHS label elements**

**Hazard pictograms** :

**Signal word** : Danger

**Hazard statements** : H225 - Highly flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H373 - May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), kidneys, liver)

**Precautionary statements**

## Section 2. Hazard identification

**Prevention** : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe vapor.
P264 - Wash thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing and eye or face protection.

**Response** : P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304 + P312, P340 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P370 + P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.

**Storage** : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Keep cool.
P405 - Store locked up.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Contains** : light alkylation naphtha; toluene and tetraethyl lead

**Note** : This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name | % (w/w) | CAS number |
|---|---|---|
| light alkylation naphtha | ≥80 | 64741-66-8 |
| toluene | ≥5 - ≤10 | 108-88-3 |
| tetraethyl lead | ≤0.1 | 78-00-2 |

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First-aid measures

### Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

# Section 4. First-aid measures

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 10 minutes. Get medical attention.

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

### Over-exposure signs/symptoms

**Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

**Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

**Skin contact** : Adverse symptoms may include the following:
irritation
redness

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

## Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This material, or a component, may be associated with cardiac sensitization following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

**Specific treatments** : No specific treatment.

# Section 4. First-aid measures

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion products** : Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, sulfur oxides

**Special protective actions for fire-fighters** : Use standard firefighting procedures and consider the hazards of other involved materials. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Assure an extended cooling down period to prevent re-ignition. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# Section 6. Accidental release measures

## NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

## Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

## Methods and materials for containment and cleaning up

# Section 6. Accidental release measures

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Do not confine in area of spill. Allow liquid to evaporate from the surface. Seek the advice of a specialist before using dispersants. Advise occupants and shipping in downwind areas of fire and explosion hazard and warn them to stay clear. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

# Section 7. Handling and storage

## Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. It is dangerous and/or unlawful to put fuel into unapproved containers. Do not fill container while it is in or on a vehicle. Static electricity may ignite vapors and cause fire. Place container on ground when filling and keep nozzle in contact with container. Do not use electronic devices (including but not limited to cellular phones, computers, calculators, pagers or other electronic devices, etc.) during safety critical tasks, such as bulk fuel loading or unloading operations, or in storage areas where vapors may be present, unless the devices are certified intrinsically safe by an approved national testing agency and to the safety standards required by national and/or local laws and regulations. For use as a motor fuel only. Do not siphon by mouth.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Static Accumulator** : This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

# Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| AVIATION GASOLINE 100LL | **ExxonMobil (Company).**<br>STEL: 200 ppm Form: Vapor.<br>TWA: 100 ppm 8 hours. Form: Vapor.<br>TWA: 300 mg/m³ 8 hours. Form: Vapor. |
| toluene | **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.**<br>STEL: 60 ppm 15 minutes.<br>TWA: 50 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2023).**<br>TWA: 20 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 20 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 20 ppm 8 hours.<br>**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.**<br>OEL: 50 ppm 8 hours.<br>OEL: 188 mg/m³ 8 hours.<br>**ACGIH TLV (United States, 1/2023). Ototoxicant.**<br>TWA: 20 ppm 8 hours. |
| tetraethyl lead | **CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.**<br>STEL: 0.3 mg/m³, (measured as Pb) 15 minutes.<br>TWA: 0.1 mg/m³, (measured as Pb) 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2023). Absorbed through skin.**<br>TWA: 0.075 mg/m³, (as Pb) 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.**<br>TWA: 0.1 mg/m³, (as Pb) 8 hours.<br>STEL: 0.3 mg/m³, (as Pb) 15 minutes.<br>**CA Quebec Provincial (Canada, 6/2022). Absorbed through skin.**<br>TWAEV: 0.05 mg/m³, (as Pb) 8 hours.<br>**CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.**<br>OEL: 0.1 mg/m³, (as Pb) 8 hours.<br>**ACGIH TLV (United States, 1/2023). Absorbed through skin.**<br>TWA: 0.1 mg/m³, (as Pb) 8 hours. |

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

## Section 8. Exposure controls/personal protection

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

**Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**Appearance**

**Physical state** : Liquid.

**Color** : Clear (May Be Dyed)

**Odor** : Petroleum/Solvent

**Odor threshold** : Not available.

**pH** : Not applicable.

**Melting point/freezing point** : -58°C (-72.4°F)

**Boiling point, initial boiling point, and boiling range** : 70 to 170°C (158 to 338°F)

**Flash point** : Closed cup: -42°C (-43.6°F) [ASTM D-56]

**Evaporation rate** : Not available.

## Section 9. Physical and chemical properties and safety characteristics

**Flammability** : Flammable liquids - Category 2

**Lower and upper explosion limit/flammability limit** : Lower: 1.4%
Upper: 7.6%

**Vapor pressure** : 285.02 to 360.03 mm Hg [38 °C]

**Relative vapor density** : 4 [Air = 1]

**Relative density** : 0.7

**Solubility in water** : Negligible

**Partition coefficient: n-octanol/water** : >3

**Auto-ignition temperature** : 439°C (822.2°F)

**Decomposition temperature** : Not available.

**Viscosity** : 0.6 cSt [20 °C]

**Particle characteristics**

**Median particle size** : Not applicable.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Heat, sparks, flame, and build up of static electricity.

**Incompatible materials** : Reactive or incompatible with the following materials:,oxidizing materials,Halogens, strong acids, Strong oxidizers, Alkalies

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

| Product/ingredient name | Test | Species | Result | Duration |
|---|---|---|---|---|
| tetraethyl lead | LC50 Inhalation Vapor<br>LD50 Oral | Rat<br>Rat | 0.85 mg/l<br>14.18 mg/kg | 1 hours<br>- |

**Conclusion/Summary**

**Inhalation** : Minimally Toxic. No end point data for material. Based on assessment of the components.

**Dermal** : Minimally Toxic. No end point data for material. Based on assessment of the components.

**Oral** : Minimally Toxic. No end point data for material. Based on assessment of the components.

**Irritation/Corrosion**

**Conclusion/Summary**

# Section 11. Toxicological information

**Skin** : Irritating to the skin. No end point data for material. Based on assessment of the components.

**Eyes** : May cause mild, short-lasting discomfort to eyes. No end point data for material. Based on assessment of the components.

**Respiratory** : Negligible hazard at ambient/normal handling temperatures. No end point data for material. Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

## Sensitization

**Conclusion/Summary**

**Skin** : Not expected to be a skin sensitizer. No end point data for material. Based on assessment of the components.

**Respiratory** : Not expected to be a respiratory sensitizer. No end point data for material.

## Mutagenicity

**Conclusion/Summary** : Not expected to be a germ cell mutagen. No end point data for material. Based on assessment of the components.

## Carcinogenicity

**Conclusion/Summary** : Not expected to cause cancer. No end point data for material. Based on assessment of the components.

### Classification

| Product/ingredient name | IARC | NTP | ACGIH |
|---|---|---|---|
| toluene<br>tetraethyl lead | 3<br>3 | -<br>Reasonably anticipated to be a human carcinogen. | A4<br>A4 |

## Reproductive toxicity

**Conclusion/Summary** : Not expected to be a reproductive toxicant. No end point data for material. Based on assessment of the components.

## Specific target organ toxicity (single exposure)

**Conclusion/Summary** : May cause drowsiness or dizziness. No end point data for material.

## Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Target organs |
|---|---|---|
| AVIATION GASOLINE 100LL | Category 2 | central nervous system (CNS), kidneys, liver |

**Conclusion/Summary** : May cause damage to organs through prolonged or repeated exposure. No end point data for material. Based on assessment of the components.

## Aspiration hazard

**Conclusion/Summary** : May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material. Data available.

## Other information

**Contains** : Light alkylate naphtha: Carcinogenic in animal tests. Chronic inhalation studies resulted in kidney tumors in male rats. This result was not considered significant for human health risk assessment by the United States EPA and others. Did not cause mutations In vitro or in vivo. Inhalation of vapors did not result in reproductive or developmental effects in test animals. Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent toxic effect on the nervous system. Non-sensitizing in test animals. TOLUENE : Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects.

# Section 11. Toxicological information

**Product** : Aviation gasoline leaded: Chronic inhalation studies resulted in liver tumors in female mice and kidney tumors in male rats. Neither result considered significant for human health risk assessment by United States EPA and others. Did not cause mutations In Vitro or In Vivo. Negative in inhalation developmental studies and reproductive toxicity studies.Inhalation of high concentrations in animals resulted in reversible central nervous system depression, but no persistent neurotoxic effects. Non-sensitizing in test animals. Caused nerve damage in humans from abusive use (sniffing). Lead may produce maternal toxicity, toxicity to fetus, and adverse effects to blood, bone marrow, central/peripheral nervous systems, kidney, liver, and reproductive systems. Exposure to this material, or one of its components, in situations where there is the potential for high levels, such as in confined spaces or with abuse, may result in abnormal heart rhythm (arrhythmia). High-level exposure to hydrocarbons (above occupational exposure limits) may initiate arrhythmia in a worker that is undergoing stress or is taking a heart-stimulating substance such as epinephrine, a nasal decongestant, or an asthma or cardiovascular drug. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

# Section 12. Ecological information

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

**Toxicity**

**Conclusion/Summary**

**Acute toxicity** : Toxic to aquatic life.

**Chronic toxicity** : Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

**Biodegradability** : Majority of components -- Expected to be inherently biodegradable

**Atmospheric Oxidation** : More volatile component -- Expected to degrade rapidly in air

**Bioaccumulative potential**

**Conclusion/Summary** : Majority of components -- Potential to bioaccumulate is low.

**Mobility in soil**

**Mobility** : Less volatile component -- Expected to partition to sediment and wastewater solids. Low solubility and floats and is expected to migrate from water to the land. More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

**Other ecological information**

**Other adverse effects** : No known significant effects or critical hazards.

# Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored

## Section 13. Disposal considerations

until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## Section 14. Transport information

| | TDG Classification | DOT Classification | IMDG | IATA |
|---|---|---|---|---|
| **UN number** | UN1203 | UN1203 | UN1203 | UN1203 |
| **UN proper shipping name** | GASOLINE | Gasoline | GASOLINE | Gasoline |
| **Transport hazard class(es)** | 3 | 3 | 3 | 3 |
| **Label(s) / Mark(s)** |  |  |  |  |
| **Packing group** | II | II | II | II |
| **Environmental hazards** | Yes. | Yes. | Yes. | Yes. The environmentally hazardous substance mark is not required. |

**Additional information**

**TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).
The marine pollutant mark is not required when transported by road or rail.
**Explosive Limit and Limited Quantity Index** 30
**Passenger Carrying Vessel Index** 100
**Passenger Carrying Road or Rail Index** 5
**Special provisions** 17, 88, 98, 150

**DOT Classification** : This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.
**Reportable quantity** 12345.7 lbs / 5604.9 kg [2115.2 gal / 8007.1 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
**Limited quantity** Yes.
**Packaging instruction** Exceptions: 150. Non-bulk: 202. Bulk: 242.
**Quantity limitation** Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.
**Special provisions** 144, 177, B1, B33, IB2, T4

**IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
**Emergency schedules** F-E, S-E
**Special provisions** 243

Flash point -42 °C C.C.

**IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
**Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.
**Special provisions** A100

## Section 14. Transport information

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not applicable.

## Section 15. Regulatory information

**Canadian lists**

**Canadian NPRI** : The following components are listed: toluene

**CEPA Toxic substances** : None of the components are listed.

**U.S. Federal regulations** : **TSCA 4(a) proposed test rules**: tetraethyl lead

**TSCA 6 final risk management**: phenol, 2,4,6-tris(1,1-dimethylethyl)

**Inventory list**

**Australia inventory (AIIC)** : All components are listed or exempted.

**Canada inventory (DSL-NDSL)** : All components are listed or exempted.

**China inventory (IECSC)** : All components are listed or exempted.

**Japan inventory (CSCL)** : All components are listed or exempted.

**Japan inventory (Industrial Safety and Health Act)** : At least one component is not listed.

**New Zealand Inventory of Chemicals (NZIoC)** : All components are listed or exempted.

**Philippines inventory (PICCS)** : All components are listed or exempted.

**Korea inventory (KECI)** : All components are listed or exempted.

**Taiwan Chemical Substances Inventory (TCSI)** : Not determined.

**United States inventory (TSCA 8b)** : All components are active or exempted.

## Section 16. Other information

**History**

**Date of issue/Date of revision** : 22 January 2024

**Date of previous issue** : No previous edition

**Version** : 1

**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

**Procedure used to derive the classification**

# Section 16. Other information

| Classification | Justification |
|---|---|
| FLAMMABLE LIQUIDS - Category 2 | On basis of test data |
| SKIN IRRITATION - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

**References** : Not available.

**Indicates information that has changed from previously issued version.**

**Product code** : 1145257

**Notice to reader**

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