

SAFETY DATA SHEET

AVGAS 100LL (< 0,1% benzen)

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	09.01.2017
Revision date	01.10.2024

1.1. Product identifier

Product name	AVGAS 100LL (< 0,1% benzen)
UFI	S600-70DG-U00A-50PW
Extended SDS with ES incorporated, comments	See ES as attachments in section 16.

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

Product group	Fuel.
Use of the substance / mixture	Low lead content aviation gasoline fuel for piston engined aircraft.
Uses advised against	This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier.
Professional use	Yes
Consumer use	No

1.3. Details of the supplier of the safety data sheet

Company name	Aviation Fuelling Services Norway AS
Office address	Kristian Augusts Gate 13
Postal address	Kristian Augusts Gate 13
Postcode	NO-0164
City	Oslo
Country	Norway
Telephone number	+47 22 54 00 50
Email	support@afsn.no
Website	www.afsn.no
Enterprise No.	914 948 681

1.4. Emergency telephone number

Emergency telephone

Telephone number: +47 22 59 13 00
Description: Norwegian Poison Information Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2; H225
Asp. Tox. 1; H304
Skin Irrit. 2; H315
STOT SE 3; H336
Repr. 1A; H360D
STOT RE 2; H373
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Substance / mixture hazardous
properties

Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
May cause harm to the unborn child.
May cause damage to organs (lever, nyre, hjerne, neurologiske effekter) through prolonged or repeated exposure.
Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label

Naphtha (petroleum), full-range alkylate, butane-containing, 2,2,4-Trimethylpentane, toluene, isopentane, naphtha (petroleum), isomerization, Tetraethyl lead

Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.
H373 May cause damage to organs (lever, nyre, hjerne, neurologiske effekter) through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.
 P260 Do not breathe dust / fume / gas / mist / vapours / spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves / protective clothing / eye protection / face protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
 P308+P313 IF exposed or concerned: Get medical advice / attention.
 P331 Do NOT induce vomiting.
 P391 Collect spillage.
 P501 Dispose of contents / container to an approved waste facility.

2.3. Other hazards

PBT / vPvB	The chemical contains no PBT or vPvB substances.
Physicochemical effects	Static accumulator: This product may accumulate static electricity. The vapours are heavier than air and will spread along the floor. Can form explosive gas-air mixtures.
Health effect	Parts of the chemical might be absorbed through the skin. If, by vomiting, the chemical reaches the lungs, life-threatening chemical pneumonia may develop. This product contains tetraethyl lead, which is known to accumulate in the body. Indications from epidemiological studies in humans have shown that exposure to tetraethyl lead can lead to developmental and neurological side effects on unborn life. Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis.
Other hazards	None of the substances listed in section 3.2 is listed on ECHA's Endocrine disruptor assessment list.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Naphtha (petroleum) , full-range alkylate, butane-containing	CAS No.: 68527-27-5 EC No.: 271-267-0 Index No.: 649-282-00-2 REACH Reg. No.: 01-2119471477-29-0050	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336	55 - 90 %	
2,2,4-Trimethylpentane	CAS No.: 540-84-1 EC No.: 208-759-1 Index No.: 601-009-00-8 REACH Reg. No.: 01-2119457965-22	Flam. Liq. 2; H225; Asp. tox. 1; H304; Skin Irrit. 2; H315; STOT SE 3; H336; Aquatic Acute 1; H400; M-factor 1; Aquatic Chronic 1; H410; M-factor 1;	0 - 50 %	
toluene	CAS No.: 108-88-3 EC No.: 203-625-9	Flam. Liq. 2; H225 Asp. Tox. 1; H304	0 - 25 %	

	Index No.: 601-021-00-3 REACH Reg. No.: 01-2119471310-51	Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361d STOT RE 2; H373 Aquatic Chronic 3; H412	
isopentane	CAS No.: 78-78-4 EC No.: 201-142-8 Index No.: 601-006-00-1 REACH Reg. No.: 01-2119475602-38	Flam. Liq. 1; H224 Asp. Tox. 1; H304 STOT SE 3; H336 Aquatic Chronic 2; H411 EUH 066	5 -20 %
naphtha (petroleum) , isomerization	CAS No.: 64741-70-4 EC No.: 265-073-5 Index No.: 649-277-00-5 REACH Reg. No.: 01-2119480399-24	Flam. Liq. 2; H224 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361 Aquatic Chronic 2; H411	0 - 15 %
Tetraethyl lead	CAS No.: 78-00-2 EC No.: 201-075-4 Index No.: 082-002-00-1 REACH Reg. No.: 01-2119622080-57	Acute Tox. 1; H300 Acute Tox. 1; H310 Acute Tox. 1; H330 Repr. 1A; H360Df STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	≤ 0,15 %
1,2-Dibromoethane	CAS No.: 106-93-4 EC No.: 203-444-5 Index No.: 602-010-00-6	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Carc. 1B; H350 Aquatic Chronic 2; H411	< 0,1 %
Cumene	CAS No.: 98-82-8 EC No.: 202-704-5 Index No.: 601-024-00-X	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 Carc. 1B; H350 Aquatic Chronic 2; H411	< 0,01
Remarks, substance	CAS-nr.:68527-27-5 og CAS-nr.: 64741-70-4 contains < 0,1% Benzene. This indicates that the ingredient is neither carcinogenic nor mutagenic. CAS No 78-00-2 has specific concentration limits: Repr. 1A; H360D: C ≥ 0,1 % STOT RE 2; H373: C ≥ 0,05 % CAS 78-00-2: ATE (oral): 14,18 mg/kg ATE (dermal): Data not available ATE (innånding): 0,85 mg/l CAS 106-93-4: ATE (oral): 108 mg/kg (literature value) ATE (dermal): 300 mg/kg (literature value) ATE (innånding): Data not available		
Substance comments	For substances without REACH registration number, no information has been provided by the subcontractor or manufacturer.		

See section 16 for explanation of hazard statements (H) listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4. In case of unconsciousness or severe accidents, call 113.
Inhalation	Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. In case of unconsciousness, loosen tight-fitting clothing. If respiratory problems, provide artificial respiration or oxygen. Seek medical advice.
Skin contact	Remove contaminated clothing. Immediately flush with large amount of water, at least for 15 min. Wash skin thoroughly with soap and water. Contact physician if irritation persists.
Eye contact	Promptly rinse eyes with plenty of water (tempered at 20-30°C) for at least 15 minutes. Remove contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately!

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

General symptoms and effects	Risk of chemical pneumonia (pneumonitis) if aspirated during and after ingestion.
Acute symptoms and effects	Inhalation: May cause drowsiness or dizziness. In high concentrations, vapors have narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin contact: The chemical irritates the skin and can cause itching, burning and redness. Parts of the chemical might be absorbed through the skin. Eye contact: May cause eye irritation. Symptoms may be stinging pain and redness in the eyes. Ingestion: Symptoms such as coughing, breathing difficulties, vomiting or lethargy may indicate chemical pneumonitis. May be fatal if swallowed and enters airways.
Delayed symptoms and effects	Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis. Causes damage to organs through prolonged or repeated exposure. May cause harm to unborn child.

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

Medical monitoring for delayed effects	Chemical pneumonia.
Other information	Treat symptomatically. No specific information from the manufacturer. If you need medical attention, bring the safety data sheet or instructions for use if possible.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	In case of major fire and large quantities: Foam. Water spray, fog or mist. Small fires: Powder. Carbon dioxide (CO ₂). Sand. Soil.
Improper extinguishing media	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Highly flammable liquid and vapour. Closed containers can burst violently when heated, due to excess pressure build-up. Can form explosive gas-air mixtures. Vapours are heavier than air and may spread near ground to sources of ignition. Static accumulator: This product may accumulate static electricity.
Hazardous combustion products	May include, but is not limited to: Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrocarbons. Unspecified organic compounds.

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	If there is no risk involved, move the containers to a safe place. If not possible, cool with water from a safe position. Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Keep away from sources of ignition - No smoking.
Personal protection measures	Provide adequate ventilation. Use protective equipment as referred to in section 8. Avoid inhalation of vapours and contact with skin and eyes. Avoid inhalation of gas.

6.2. Environmental precautions

Environmental precautionary measures	Do not allow to enter into sewer, water system or soil.
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6.3. Methods and material for containment and cleaning up

Clean up	Stop the leak if possible without risk. Collect with absorbent, non-combustible material into suitable containers. Proposals for inert materials: sand, kieselguhr, universal binder. Collect in a suitable container and dispose as hazardous waste according to section 13. In cases where a lot of liquid is spilled (> 1 barrel), the spill is transferred mechanically by, for example, a vacuum tank truck which transports the waste to a collection tank for recycling or safe disposal. Do not rinse material debris with water.
Other information	Vapours may form explosive mixtures with air on the ground. Static accumulator: This product may accumulate static electricity.

6.4. Reference to other sections

Other instructions	See also sections 7, 8 and 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	<p>Provide adequate ventilation. Mechanical ventilation or local exhaust ventilation may be required. Use protective equipment as referred to in section 8.</p> <p>Avoid inhalation of vapours and contact with skin and eyes. Avoid swallowing. Avoid accumulation of steam in pits and confined spaces. Not use electronic devices (including but not limited to mobile phones, computers, calculators, pagers or other electronic devices, etc.) during safety-critical tasks, such as loading or unloading bulk fuel, or in storage areas where vapors may be present, unless the devices are certified to the safety standards required by national and/or local laws and regulations.</p>
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Protective safety measures

Safety measures to prevent fire	<p>Do not use near naked flames or glowing materials. Keep away from sources of ignition - No smoking.</p> <p>Do not spray on a naked flame or red-hot material.</p> <p>Take precautionary measures against static discharges.</p> <p>Ground / bond container and receiving equipment.</p> <p>Use explosion-proof electrical / ventilating / lighting / / equipment.</p> <p>Use only non-sparking tools.</p>
Advice on general occupational hygiene	<p>Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash contaminated clothing before reuse. Contaminated leather articles including shoes cannot be decontaminated and should be destroyed to prevent reuse.</p>

7.2. Conditions for safe storage, including any incompatibilities

Storage	<p>Store in a well-ventilated place. Keep container tightly closed.</p> <p>Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Follow rules for flammable liquids.</p>
Conditions to avoid	<p>Avoid heat, flames and other sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.</p>

Conditions for safe storage

Advice on storage compatability	Keep away from: Strong oxidizing agents. Food and feed.
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7.3. Specific end use(s)

Specific use(s)	See section 1.2. See exposure scenario.
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SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
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toluene	CAS No.: 108-88-3	Limit value (8 h) : 25 ppm Limit value (8 h) : 94 mg/m ³ Exposure limit letter Letter code: HE Comments: (Norwegian)
isopentane	CAS No.: 78-78-4	Limit value (8 h) : 250 ppm Limit value (8 h) : 750 mg/m ³ Exposure limit letter Letter code: E
Tetraethyl lead	CAS No.: 78-00-2	Limit value (8 h) : 0,01 ppm Limit value (8 h) : 0,075 mg/m ³ Exposure limit letter Letter code: H R Comments: (Norwegian)
1,2-Dibromoethane	CAS No.: 106-93-4	Limit value (8 h) : 0,01 ppm Limit value (8 h) : 0,1 mg/m ³ Exposure limit letter Letter code: H K G Comments: (Norwegian)
Cumene	CAS No.: 98-82-8	Limit value (8 h) : 10 ppm Limit value (8 h) : 50 mg/m ³ Exposure limit letter Letter code: H, K, E Limit value (8 h) : 50 ppm Limit value (8 h) : 250 mg/m ³ Exposure limit letter Letter code: S

Control parameters comments**Explanation of the notations:**

E = The EU has an indicative limit value and/or remark for the substance.

G = The EU has adopted a binding limit value and/or notice for the substance.

H = Chemicals that can be absorbed through the skin.

K = Chemicals to be treated as carcinogenic.

R = Chemicals to be considered toxic to reproduction.

S = The short-term exposure limit: the average concentration of a chemical substance in an employee's breathing zone that must not be exceeded over a given reference period. The reference period is 15 minutes unless otherwise specified.

References (laws/regulations): Norwegian regulation on exposure limits: FOR 2011-12-06 nr. 1358 Forskrift om tiltaks- og grenseverdier (sist endret gjennom FOR-2024-05-15-782)..

DNEL / PNEC**DNEL**

Group: Professional

Comments: CAS: 68527-27-5

Long-term, inhalation (systemic) - 1286.4 mg/m

Acute inhalation (systemic) - 1286.4 mg/m³

Long-term, inhalation (local) - 837.5 mg/m³

Acute inhalation (local) - 1066.67 mg/m³

PNEC

CAS: 540-84-1
 Long-term, inhalation (systemic) - 2035 mg/m³
 Long-term, dermal (systemic) - 773 mg/kg bw/day

CAS: 108-88-3
 Long-term, inhalation (systemic) - 192 mg/m³
 Acute inhalation (systemic) - 384 mg/m³
 Long-term, inhalation (local) - 192 mg/m³
 Acute inhalation (local) - 384 mg/m³
 Long-term, dermal (systemic) - 384 mg/kg bw/day

CAS: 78-78-4
 Long-term, inhalation (systemic) - 3000 mg/m³
 Long-term, dermal (systemic) - 432 mg/kg bw/day

CAS: 64741-70-4
 Long-term, inhalation (systemic) - 1286.4 mg/m³
 Acute inhalation (systemic) - 1286.4 mg/m³
 Long-term, inhalation (local) - 837.5 mg/m³
 Acute inhalation (local) - 1066.67 mg/m³

CAS: 78-00-2
 Long-term, inhalation (systemic) - 0.16 mg/m³
 Acute inhalation (systemic) - 0.681 mg/m³
 Long-term, dermal (systemic) - 0.001 mg/kg bw/day
 Acute dermal (systemic) - 3.13 mg/kg bw/day

CAS: 98-82-8
 Acute inhalation (local) - 250 mg/m³
 Long-term, inhalation (systemic) - 100 mg/m³
 Long-term, dermal (systemic) - 15.4 mg/kg bw/d

Comments: CAS: 108-88-3
 Fresh water - 0.68 mg/l
 Salt water - 0.68 mg/l
 Sediment in freshwater - 16.39 mg/kg
 Sediment in salt water - 16.39 mg/kg
 Soil - 2.89 mg/kg Soil - dw
 Treatment plant STP - 13.61 mg/L

CAS: 78-00-2
 Fresh water - 0.027 µg/L
 Saline - 0.003 µg/L
 Soil - 0.93 µg/kg Soil - dw
 Treatment plant STP - 0.5 µg/L
 Secondary poisoning - 0.6 µg/kg

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure

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

protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment.

A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.

Eye / face protection

Eye protection equipment	Description: Wear approved chemical safety goggles where eye exposure is reasonably probable. Reference to relevant standard: EN ISO 16321-1:2022 (Eye and face protection for occupational use - Part 1: General requirements).
Additional eye protection measures	Eye wash facilities shall be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

Hand protection

Suitable materials	Nitrile. Neoprene. Polyvinylalkohol (PVA)
Breakthrough time	Value: 480 minute(s)
Thickness of glove material	Value: 0,38 mm
Hand protection equipment	Description: Use chemical resistant gloves. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: EN ISO 374 (Protective gloves against chemicals and micro-organisms). EN ISO 21420:2020 (Protective gloves - General requirements and test methods).
Additional hand protection measures	Replace gloves if signs of wear and tear. Gloves must only be worn on clean, dry hands.

Skin protection

Recommended protective clothing	Description: Chemical/oil resistant protective clothing is recommended.
Additional skin protection measures	Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Wash contaminated clothing before reuse. Emergency shower should be available at the workplace.

Respiratory protection

Recommended respiratory protection	Description: In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A/P2). At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Reference to relevant standard: EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking). EN 12083 (Respiratory protective devices. Filters with breathing hoses, (Non-mask mounted filters). Particle filters, gas filters, and combined filters. Requirements, testing, marking). BS-EN 136 (Respiratory protective devices. Full face masks. Requirements, testing, marking)
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BS-EN 140 (Respiratory protective devices. Half masks and quarter masks. Requirements, testing, marking)

Appropriate environmental exposure control

Environmental exposure controls Do not allow to enter into sewer, water system or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Characteristic.
pH	Comments: Not specified by the manufacturer.
Freezing point	Value: < -65 °C
Boiling point / boiling range	Value: > 30 - 170 °C
Flash point	Value: < 21 °C
Flammability	Highly flammable liquid and vapour.
Explosion limit	Comments: Not specified by the manufacturer.
Vapour pressure	Value: 380 - 490 hPa Temperature: 38,0 °C
Vapour density	Comments: Not specified by the manufacturer.
Particle characteristics	Comments: Not relevant for liquids.
Density	Value: 0,69 -0,725 kg/dm ³
Solubility	Comments: Not specified by the manufacturer.
Partition coefficient: n-octanol/ water	Comments: Not relevant for a mixture.
Auto-ignition temperature	Comments: Not specified by the manufacturer.
Decomposition temperature	Comments: Not specified by the manufacturer.
Viscosity	Comments: Not specified by the manufacturer.
Explosive properties	The chemical is not explosive, but may form explosive mixtures with air.

9.2. Other information

Other physical and chemical properties

Physical and chemical properties No further information is available.

9.2.2. Other safety characteristics

Comments No further information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under normal temperature conditions and recommended use.
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10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	May arise in contact with incompatible materials (see section 10.5) and/or under inappropriate conditions (see section 10.4). Can form explosive gas-air mixtures.
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10.4. Conditions to avoid

Conditions to avoid	Heat, sparks or open flame. Take precautionary measures against static discharge.
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10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.
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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Other toxicological data	Toxicological data (ATE) on components: see section 3.
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Other information regarding health hazards

Acute toxicity, mixture estimate	Dose: ATEmix calculated Route of exposure: Oral Value: > 2000 mg/kg Dose: ATEmix calculated Route of exposure: Dermal Value: > 2000 mg/kg Dose: ATEmix calculated Route of exposure: Inhalation. Value: > 20 mg/m ³
Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Irritating to skin.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.

Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met. The chemical is not classified as carcinogenic, but is marked as carcinogenic in the Norwegian working exposure limit list.
Assessment of reproductive toxicity, classification	May damage the unborn child
Assessment of specific target organ toxicity - single exposure, classification	May cause drowsiness or dizziness.
Assessment of specific target organ toxicity - repeated exposure, classification	May cause damage to organs through prolonged or repeated exposure.
Assessment of aspiration hazard, classification	May be fatal if swallowed and enters airways.

Symptoms of exposure

In case of ingestion	Harmful if swallowed. Symptoms such as coughing, breathing difficulties, vomiting or lethargy may indicate chemical pneumonitis.
In case of skin contact	The chemical irritates the skin and can cause itching, burning and redness. Parts of the chemical might be absorbed through the skin. Injections through the skin after contact with the product at high pressure constitute a major medical hazard. The injuries do not immediately appear severe, but within a few hours, the skin tissue becomes swollen, discolored and with very painful subcutaneous necrosis.
In case of inhalation	May cause drowsiness or dizziness. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.
In case of eye contact	May cause eye irritation. Symptoms may be stinging pain and redness in the eyes.

11.2 Other information

Endocrine disruption	None of the substances listed in section 3.2 is listed on ECHA's Endocrine disruptor assessment list.
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SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity, fish	Toxicity type: Acute Value: 110 µg/l Effect dose concentration: LC50 Exposure time: 4 day(s) Comments: Applies to CAS: 540-84-1. (Literature value)
	Toxicity type: Chronic Value: 380 µg/l Effect dose concentration: EL10

	<p>Exposure time: 60 day(s) Comments: Applies to CAS: 540-84-1. (Literature value)</p> <p>Toxicity type: Chronic Value: 1,39 mg/l Effect dose concentration: NOEC Exposure time: 40 day(s) Comments: Applies to CAS: 108-88-3. (Literature value)</p> <p>Toxicity type: Chronic Value: 6,57 mg/l Effect dose concentration: EL10 Exposure time: 60 day(s) Comments: Applies to CAS: 78-78-4. (Literature value)</p> <p>Toxicity type: Chronic Value: 10 mg/l Effect dose concentration: EL50 Exposure time: 21 day(s) Comments: Applies to CAS: 64741-70-4. (Literature value)</p> <p>Toxicity type: Chronic Value: 380 µg/l Effect dose concentration: NOEC Exposure time: 28 day(s) Comments: Applies to CAS: 98-82-8. (Literature value)</p> <p>Comments: Data lacking. Applies to CAS: 106-93-4.</p>
Aquatic toxicity, crustacean	<p>Toxicity type: Chronic Value: 2,6 -16 mg/l Effect dose concentration: NOELR Exposure time: 21 day(s) Comments: Applies to CAS: 68527-27-5. (Literature value)</p> <p>Value: 500 µg/l Effect dose concentration: NOELR Exposure time: 48 hour(s) Comments: Applies to CAS: 68527-27-5. (Literature value)</p>
Ecotoxicity	Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	<p>Volatile solvents are rapidly oxidized by photochemical reaction in air. The main ingredients of the chemical; Expected to be biodegradable.</p>
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12.3. Bioaccumulative potential

Bioconcentration factor (BCF)	<p>Value: 21 Comments: Applies to CAS: 106-93-4. (Literature value)</p> <p>Value: 35,5 Comments: Applies to CAS: 98-82-8. (Literature value)</p> <p>Value: 13</p>
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	Comments: Applies to CAS: 78-00-2. (Literature value)
	Value: 70
	Comments: Applies to CAS: 78-78-4. (Literature value)
	Value: 10 -90
	Comments: Applies to CAS: 108-88-3. (Literature value)
	Value: 372
	Comments: Applies to CAS: 540-84-1. (Literature value)
Bioaccumulation, evaluation	Log Pow: 1,93. Applies to CAS: 106-93-4. (Literature value)
	Log Pow: 3,66. Applies to CAS: 98-82-8. (Literature value)
	Log Pow: 3. Applies to CAS: 78-00-2. (Literature value)
	Log Pow: 2,30. Applies to CAS: 78-78-4. (Literature value)
	Log Pow: 2,75. Applies to CAS: 108-88-3. (Literature value)
	Log Pow: 4,53. Applies to CAS: 540-84-1. (Literature value)

12.4. Mobility in soil

Mobility	Insoluble in water. Density lower than water.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	The chemical contains no PBT or vPvB substances.
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12.6. Endocrine disrupting properties

Endocrine disrupting properties	None of the substances listed in section 3.2 is listed on ECHA's Endocrine disruptor assessment list.
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12.7. Other adverse effects

Additional ecological information	Do not allow to enter into sewer, water system or soil. Forms an oil film on water surfaces that may harm organisms in the water and disrupt oxygen transport in the boundary layer between air and water.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intended as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
EWC waste code	EWC waste code: 13 07 02 petrol Classified as hazardous waste: Yes
NORSAS	7023 Fuel and heating oil.
Other information	Do not empty into drains.

SECTION 14: Transport information

Dangerous goods	Yes
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14.1. UN number

ADR/RID/ADN	1203
IMDG	1203
ICAO/IATA	1203

14.2. UN proper shipping name

Proper shipping name English	GASOLINE
ADR/RID/ADN	GASOLINE
ADR/RID/ADN	GASOLINE
IMDG	GASOLINE
ICAO/IATA	GASOLINE

14.3. Transport hazard class(es)

ADR/RID/ADN	3
Classification code ADR/RID/ADN	F1
IMDG	3
ICAO/IATA	3

14.4. Packing group

ADR/RID/ADN	II
IMDG	II
ICAO/IATA	II

14.5. Environmental hazards

IMDG Marine pollutant	Yes
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14.6. Special precautions for user

Special safety precautions for user	See also section 7.
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14.7. Maritime transport in bulk according to IMO instruments

Product name	GASOLINE
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Additional information

Hazard label ADR/RID/ADN	3
Hazard label IMDG	3
Hazard label ICAO/IATA	3

ADR/RID Other information

Tunnel restriction code	D/E
Transport category	2

Hazard No.	33
Other applicable information ADR/RID	33

IMDG Other information

EmS	F-E, S-E
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SECTION 15: Regulatory information

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

Restriction of chemicals according to Annex XVII (REACH)	CAS 68527-27-5, CAS 64741-70-4, CAS 106-93-4, CAS 98-82-8 are covered by entries 28 - 30, and the use is restricted according to REACH Annex XVII. The restriction is not relevant to this mixture and use. CAS 108-88-3 are covered by entries 48, and the use is restricted according to REACH Annex XVII. The restriction is not relevant to this mixture and use.
References (laws/regulations)	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Norwegian regulation on waste, 01.06.2004 no. 930, with later amendments. Norwegian regulation on dangerous goods: FOR 2009-04-01 nr 384: Forskrift om landtransport av farlig gods med senere endringer, Direktoratet for samfunnssikkerhet og beredskap. Norwegian regulation on declaration: FOR-2015-05-19-541, 01.06.2015 with later amendments.
Comments	CAS 78-00-2 Tetraethyllead is listed in the candidate list of Substances of Very High Concern. (SVHC, REACH). CAS 78-00-2 Tetraethyllead is listed on the list of substances subject to authorisation (Annex XIV, REACH).
Declaration No.	325757

15.2. Chemical safety assessment

Chemical safety assessment performed	Yes
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SECTION 16: Other information

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
List of relevant H-phrases (Section 2 and 3)	EUH 066 Repeated exposure may cause skin dryness or cracking. H224 Extremely flammable liquid and vapour. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H300 Fatal if swallowed. H301 Toxic if swallowed. H304 May be fatal if swallowed and enters airways. H310 Fatal in contact with skin.

	<p>H311 Toxic in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H330 Fatal if inhaled. H331 Toxic if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H350 May cause cancer . H360Df May damage the unborn child. Suspected of damaging fertility. H360D May damage the unborn child. H361d Suspected of damaging the unborn child. H361 Suspected of damaging fertility or the unborn child H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.</p>
CLP classification, comments	Calculation method.
Key literature references and sources for data	Suppliers Safety data sheet dated: 12.10.2023
Abbreviations and acronyms used	<p>ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road DNEL: Derived No Effect Level EWC: European Waste Code (a code from the EU's common classification system for waste) EC50: The effective concentration of substance that causes 50% of the maximum response EL50: The effective concentration of substance (slightly soluble) that causes 50% of the maximum response. IATA: The International Air Transport Association ICAO: The International Civil Aviation Organisation IMDG: The International Maritime Dangerous Goods Code LC50: Median concentration lethal to 50% of a test population. LD50: Lethal dose, is the amount of a substance given to a group of test animals, which causes the death of 50%. LL50: Lethal Loading rate. The effective concentration of substance that causes 50% of the maximum response for poorly water soluble substances. NOEC: No observed effect concentration NOELR: Ingen observerbar effektbelastning (No Observable Effect Loading Rate) Log Pow: Partition coefficient: n-octanol / water OECD: Organisation for Economic Cooperation and Development. PBT: Persistent, Bioaccumulative and Toxic RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail vPvB: very Persistent and very Bioaccumulative</p>
Information added, deleted or revised	Sections being revised since previous version: 1 - 16
Version	2
Prepared by	Kiwa Kompetanse, Norway by SR
Contents or index of annexed ES	1 Manufacture of substance- Industrial

- 2 Use as an intermediate- Industrial
- 3 Distribution of substance- Industrial
- 4 Formulation & (re)packing of substances and mixtures- Industrial
- 5 Use as a fuel- Industrial
- 6 Use as a fuel- Professional

Exposure scenario

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