

### Section 1. Identification

**Product identifier** : ELF CORE 50

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

**Identified uses**

Racing fuel for use in Motorsports

**Uses advised against**

Not applicable.

**Reason**

**Supplier's details**

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**Emergency telephone number (with hours of operation)**

Australia: +61 2 8014 4558  
Asia-Pacific: +65 3158 1074

### Section 2. Hazard(s) identification

**Classification of the substance or mixture** : **F** LAMMABLE LIQUIDS - Category 2  
SKIN CORROSION/IRRITATION - Category 2  
GERM CELL MUTAGENICITY - Category 1B  
CARCINOGENICITY - Category 1B  
TOXIC TO REPRODUCTION - Category 1A  
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.**  
**H340 - May cause genetic defects.**  
**H350 - May cause cancer.**  
**H360 - May damage fertility or the unborn child.**  
**H373 - May cause damage to organs through prolonged or repeated exposure.**

**Precautionary statements**

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.
- Response** : If exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Take off contaminated clothing and wash before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. In case of fire: Use water spray, dry chemical powder or carbon dioxide to extinguish.
- Storage** : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Not applicable.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition and ingredient information

**Substance/mixture** : Mixture

Ingredient name	% (w/w)	CAS number	EC number
Toluene	≥30 - ≤60	108-88-3	203-625-9
Naphtha (petroleum), full-range alkylate, butane-contg.	≥10 - ≤30	68527-27-5	271-267-0
Hydrocarbons, C4-6, depentanizer lights, arom. hydrotreater	≥10 - ≤30	68476-55-1	295-298-4
ethanol	<10	64-17-5	200-578-6
2-ethoxy-2-methylpropane	≤10	637-92-3	211-309-7

**Reportable hazardous constituent(s) contained in UVCB and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)**



Ingredient name	% (w/w)	CAS number	EC number
isopentane	2.5 - 5	78-78-4	201-142-8
pentane	2.5 - 5	109-66-0	203-692-4
n-hexane	0.1 - 1	110-54-3	203-777-6
benzene	0.1 - 1	71-43-2	200-753-7
oct-1-ene	0.1 - 1	111-66-0	203-893-7

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment 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.
- 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 contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
 nausea or vomiting  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, 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.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.



- 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.
- Hazchem code** : 3YE
- Remark** :  Not considered to be a product presenting a risk of explosion.

## Section 6. Accidental release measures

### 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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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).

### Methods and materials for containment and cleaning up

- 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. 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. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** :  Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. 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.



**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.

**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 and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
toluene	<b>Safe Work Australia (Australia, 12/2019). Absorbed through skin.</b> STEL: 574 mg/m <sup>3</sup> 15 minutes. STEL: 150 ppm 15 minutes. TWA: 191 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
ethanol	<b>Safe Work Australia (Australia, 12/2019).</b> TWA: 1880 mg/m <sup>3</sup> 8 hours. TWA: 1000 ppm 8 hours.
2-ethoxy-2-methylpropane	<b>ACGIH TLV (United States, 1/2021).</b> TWA: 25 ppm 8 hours.

**Reportable hazardous constituent(s) contained in UVCB and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)**

Ingredient name	Exposure limits
isopentane	<b>ACGIH TLV (United States, 1/2021).</b> TWA: 1000 ppm 8 hours.
pentane	<b>Safe Work Australia (Australia, 12/2019).</b> STEL: 2210 mg/m <sup>3</sup> 15 minutes. STEL: 750 ppm 15 minutes. TWA: 1770 mg/m <sup>3</sup> 8 hours. TWA: 600 ppm 8 hours.
n-hexane	<b>Safe Work Australia (Australia, 12/2019).</b> TWA: 72 mg/m <sup>3</sup> 8 hours. TWA: 20 ppm 8 hours.
benzene	<b>Safe Work Australia (Australia, 12/2019).</b> TWA: 3.2 mg/m <sup>3</sup> 8 hours. TWA: 1 ppm 8 hours.

**Advisory OEL**

: No known significant effects or critical hazards.





**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.

**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.

Hydrocarbon-proof gloves for aromatic hydrocarbons.

Repeated or prolonged exposure

Gloves made of PVA are not water-resistant, and are not suitable for emergency use

Glove material: Nitrile rubber; Glove thickness > 0.5 mm; Break through time > 480 min.

Glove material: Fluorinated rubber; any thickness; Break through time > 480 min.

Glove material: polyvinyl alcohol (PVA); any thickness; Break through time > 480 min.

In case of contact through splashing

Glove material: Nitrile rubber; Glove thickness > 0.3 mm; Break through time > 60 min.

**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. When using a mask or half mask : Respirator with a vapor filter (EN 14387) Respirator with combination filter for vapor/particulate Type A/P2 Type AX The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses



## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

### Appearance

Physical state	: Liquid.
Color	: Colorless.
Odor	: Petroleum distillates
Odor threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point	: 36 to 125°C (96.8 to 257°F) [ISO 3405]
Flash point	: Closed cup: ≤-30°C (≤-22°F) [ISO 13736]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor pressure 37.8°C (100°F)	: 590 hPa
Vapor density	: >1 [Air = 1]
Relative density	: 0.748 [ISO 12185]
Density	: 0.748 g/cm <sup>3</sup> [15°C] [ISO 12185]
Solubility	: Very slightly soluble in the following materials: cold water and hot water.
Miscible with water	: Yes.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: >230°C (>446°F)
Decomposition temperature	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): <1 mm <sup>2</sup> /s (<1 cSt) [ISO 3104]
Flow time (ISO 2431)	: Not available.
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	: Stable under recommended storage and handling conditions (see Section 7).
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.





**Incompatible materials** : Reactive or incompatible with the following materials:  
 oxidizing materials  
 Strong oxidizing agents  
 Strong bases

**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/substance	Result	Species	Dose	Exposure	Test
Toluene	LC50 Inhalation Vapor	Rat	49 g/m <sup>3</sup>	4 hours	-
	LC50 Inhalation Vapor	Rat - Male, Female	>20 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit - Male	12267 mg/kg	-	-
	LD50 Oral	Rat - Male	>5000 mg/kg	-	EU B.1 Acute Toxicity (Oral)
Naphtha (petroleum), full-range alkylate, butane-contg.	LC50 Inhalation Vapor	Rat	40.2 mg/l	1 hours	-
	LC50 Inhalation Vapor	Rat	>5610 mg/m <sup>3</sup>	4 hours	OECD 403
	LD50 Dermal	Rabbit	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
Hydrocarbons, C4-6, deparaffinizer lights, arom. hydrotreater	LC50 Inhalation Vapor	Rat	40.2 mg/l	1 hours	-
	LC50 Inhalation Vapor	Rat	>5610 mg/m <sup>3</sup>	4 hours	OECD 403
	LD50 Dermal	Rabbit	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401
ethanol	LC50 Inhalation Dusts and mists	Rat	50000 mg/m <sup>3</sup>	4 hours	-
	LD50 Oral	Rat	7060 mg/kg	-	-
	LD50 Oral	Rat - Male, Female	10470 mg/kg	-	-
	LD50 Oral	Rat - Male, Female	>5.88 mg/l	4 hours	OECD 403
2-ethoxy-2-methylpropane	LC50 Inhalation Vapor	Rat - Male, Female	>5.88 mg/l	4 hours	OECD 403
	LD50 Dermal	Rabbit - Male, Female	>2000 mg/kg	-	OECD 402
	LD50 Oral	Rat - Male, Female	>2003 mg/kg	-	OECD 401

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
Toluene ethanol	Skin - Mild irritant	Rabbit	-	435 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	100 uL	-
	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	400 mg	-



	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
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- Skin** : Based on available data, the classification criteria are met.
- Eyes** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.
- Sensitization**
- Skin** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.
- Mutagenicity**
- Conclusion/Summary** : Based on available data, the classification criteria are met.
- Carcinogenicity**
- Conclusion/Summary** : Based on available data, the classification criteria are met.
- Reproductive toxicity**
- Conclusion/Summary** : Based on available data, the classification criteria are met.
- Teratogenicity**
- Conclusion/Summary** : Based on available data, the classification criteria are not met.

**Specific target organ toxicity (single exposure)**

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> oluene Naphtha (petroleum), full-range alkylate, butane-contg. Hydrocarbons, C4-6, depentanizer lights, arom. hydrotreater 2-ethoxy-2-methylpropane	Category 3 Category 3 Category 3 Category 3	- - - -	Narcotic effects Narcotic effects Narcotic effects Narcotic effects

**Specific target organ toxicity (repeated exposure)**

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> oluene	Category 2	-	-

**Aspiration hazard**

Name	Result
<input checked="" type="checkbox"/> oluene Naphtha (petroleum), full-range alkylate, butane-contg. Hydrocarbons, C4-6, depentanizer lights, arom. hydrotreater	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

**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.

**Symptoms related to the physical, chemical and toxicological characteristics**



- 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  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : May cause genetic defects.
- Reproductive toxicity** :  May damage fertility or the unborn child.

**Numerical measures of toxicity**

**Acute toxicity estimates**

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
ELF CORE 50					



## Section 12. Ecological information

### Toxicity

Product/substance	Result	Species	Exposure	Test
Toluene	Acute EC50 134 mg/l	-	3 hours	-
	Acute EC50 >433 ppm	Algae - Skeletonema costatum	96 hours	-
	Marine water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours	-
	Acute EC50 11600 µg/l	Daphnia - Daphnia magna	48 hours	-
	Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours	-
	Acute EC50 3.78 mg/l	Algae - Skeletonema costatum	72 hours	-
	Acute LC50 5500 µg/l	Fish - Oncorhynchus kisutch	40 days	-
	Fresh water	Daphnia - Ceriodaphnia dubia	7 days	-
	Acute NOEC 10 mg/l	Fish - Oncorhynchus kisutch	40 days	-
	Chronic LOEL 2.77 mg/l	-	72 hours	OECD 201
Naphtha (petroleum), full-range alkylate, butane-contg.	Acute EC50 3.1 mg/l	-	72 hours	OECD 201
	Acute EC50 4.5 mg/l	Crustaceans - Daphnia magna	48 hours	OECD 202
	Acute LC50 8.2 mg/l	Fish - Pimephales promelas	96 hours	OECD 203
	Chronic NOEC 0.5 mg/l	Algae - Pseudokirchnerella subcapitata	72 hours	OECD 201
Hydrocarbons, C4-6, deparaffinizer lights, arom. hydrotreater	Acute EC50 3.1 mg/l	-	72 hours	OECD 201
	Acute EC50 4.5 mg/l	Crustaceans - Daphnia magna	48 hours	OECD 202
	Acute EL50 3.1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	OECD 201 201
	Acute LC50 8.2 mg/l	Fish - Pimephales promelas	96 hours	-
ethanol	Acute EC50 275 mg/l	-	72 hours	OECD 201
	Acute EC50 3306 mg/l	Algae - Ulva pertusa	96 hours	-
	Marine water	Daphnia - Ceriodaphnia dubia	48 hours	STDMETH, ASTM and USEPA E729-80
	Acute EC50 5012 mg/l	-	30 minutes	-
	Acute EC50 34634 mg/l	Micro-organism	5 minutes	-
	Acute EC50 35470 mg/l	Micro-organism	48 hours	-
	Acute LC50 25500 µg/l	Crustaceans - Artemia franciscana - Larvae	96 hours	-
	Marine water	Fish	96 hours	-
	Acute LC50 14200 mg/l	Fish - Oncorhynchus mykiss	4 days	-
	Acute LC50 42000 µg/l	Algae - Ulva pertusa	96 hours	-
	Fresh water	Daphnia - Ceriodaphnia dubia	10 days	-
	Chronic NOEC 4.995 mg/l	Fish	30 days	-
	Marine water	-	-	-
Chronic NOEC 9.6 mg/l	-	-	-	
Chronic NOEC 245 mg/l	-	-	-	



2-ethoxy-2-methylpropane	Acute EC50 1100 mg/l	-	72 hours	OECD 201
	Acute EC50 37 mg/l	Crustaceans - Mysidopsis bahia	48 hours	EPA
	Acute LC50 574 mg/l	Fish - Menidia beryllina	96 hours	EPA
	Acute NOEC 12.5 mg/l	Micro-organism - Pseudomonas putida	18 hours	-
	Chronic NOEC 7.5 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	OECD 201
Chronic NOEC 1.7 mg/l	Crustaceans - Americamysis bahia	28 days	EPA	

**Persistence and degradability**

Product/substance	Test	Result	Dose	Inoculum
2-ethoxy-2-methylpropane	OECD 301D	6.6 % - Not readily - 28 days	-	Activated sludge

Product/substance	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily
ethanol	-	-	Readily
2-ethoxy-2-methylpropane	-	-	Not readily

**Bioaccumulative potential**

Product/substance	LogK <sub>ow</sub>	BCF	Potential
toluene	2.73	90	low
Naphtha (petroleum), full-range alkylate, butane-contg.	-	10 to 2500	high
Hydrocarbons, C4-6, deparanizer lights, arom. hydrotreater	-	10 to 2500	high
ethanol	-0.35	-	low
2-ethoxy-2-methylpropane	1.48	-	low

**Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility in soil** : Given its physical and chemical characteristics, the product is generally mobile in the ground. It may contaminate ground water. A small amount may solubilise in water. The product spreads on the surface of the water. The product evaporates in the air and dissipates more or less depending on local conditions. However, it may stagnate in pools in low-lying areas, in an undisturbed or confined atmosphere.







**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. This material and its container must be disposed of in a safe way. Care should be taken when

handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	ADG	ADR/RID	IMDG	ICAO/IATA
UN/ID No	UN1203	UN1203	UN1203	UN1203
UN proper shipping name	GASOLINE	GASOLINE	GASOLINE	Gasoline
Transport hazard class(es)	3 	3  	3  	3 
Packing group	II	II	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

### Additional information

- ADG** : **Hazchem code** 3YE  
**Special provisions** 243
- ADR/RID** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Hazard identification number** 33  
**Limited quantity** 1 L  
**Special provisions** 243, 534, 664  
**Tunnel code** (D/E)
- 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
- ICAO/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

**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 available.



## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia inventory (AIC)</b>	: <input checked="" type="checkbox"/> At least one component is not listed.
<b>Canada inventory (DSL/NDSL)</b>	: At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China inventory (IECSC)</b>	: At least one component is not listed. <input checked="" type="checkbox"/>
<b>Europe inventory (EINECS/ELINCS/NLP)</b>	: <input checked="" type="checkbox"/> All components are listed or exempted.
<b>Japan inventory</b>	: <b>Japan inventory (CSCL)</b> : All components are listed or exempted. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	: At least one component is not listed.
<b>Philippines inventory (PICCS)</b>	: At least one component is not listed.
<b>Korea inventory (KECI)</b>	: At least one component is not listed.
<b>Taiwan Chemical Substances Inventory (TCSI)</b>	: At least one component is not listed.
<b>Thailand inventory</b>	: Not determined.
<b>Turkey inventory</b>	: Not determined.
<b>United States inventory (TSCA 8b)</b>	: All components are listed or exempted.
<b>Vietnam inventory</b>	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.



## Section 16. Any other relevant information

### History

Date of revision : 2022/03/16

Date of previous revision : 2020/12/31

Version : 2

### Key to abbreviations

- : ADG = Australian Dangerous Goods
- : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- : ATE = Acute Toxicity Estimate
- : BCF = Bioconcentration Factor
- : GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- : 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
- : SUSMP = Standard Uniform Schedule of Medicine and Poisons
- : UN = United Nations

### Procedure used to derive the classification

Classification	Justification
<ul style="list-style-type: none"> <li>☑ FLAMMABLE LIQUIDS - Category 2</li> <li>SKIN CORROSION/IRRITATION - Category 2</li> <li>GERM CELL MUTAGENICITY - Category 1B</li> <li>CARCINOGENICITY - Category 1B</li> <li>TOXIC TO REPRODUCTION - Category 1A</li> <li>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3</li> <li>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2</li> <li>ASPIRATION HAZARD - Category 1</li> </ul>	<ul style="list-style-type: none"> <li>On basis of test data</li> <li>Calculation method</li> <li>Calculation method</li> <li>Calculation method</li> <li>Calculation method</li> <li>Calculation method</li> <li>Calculation method</li> <li>Calculation method</li> </ul>

References : Not available.

☑ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.