



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : A04775

ELF CORE 50

Date of the previous version: 2018-05-30

Revision Date: 2019-02-01

Version 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	ELF CORE 50
Substance/mixture	Mixture

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

Identified uses	Fuel.
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1.3. Details of the supplier of the safety data sheet

Supplier	TOTAL ADDITIFS ET CARBURANTS SPECIAUX Place du Bassin 69700 Givors FRANCE Tel: +33 (0) 4 72 49 27 00 Fax: +33 (0) 4 78 07 92 49
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For further information, please contact:

Contact Point	service HSE
E-mail Address	rm.acs-fds@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670
 France - ORFILA (INRS) Tél : +33 (0)1 45 42 59 59
 In France - Poison centers:
 ANGERS : 02 41 48 21 21
 BORDEAUX : 05 56 96 40 80
 LILLE : 08 00 59 59 59
 LYON : 04 72 11 69 11
 MARSEILLE : 04 91 75 25 25
 NANCY : 03 83 22 50 50
 PARIS : 01 40 05 48 48
 STRASBOURG : 03 88 37 37 37
 TOULOUSE : 05 61 77 74 47

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.



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Classification

Flammable liquids - Category 2 - (H225)
 Aspiration toxicity - Category 1 - (H304)
 Skin corrosion/irritation - Category 2 - (H315)
 Germ Cell Mutagenicity - Category 1B - (H340)
 Carcinogenicity - Category 1B - (H350)
 Reproductive toxicity - Category 2 - (H361)
 Specific target organ toxicity (single exposure) - Category 3 - (H336)
 Specific target organ toxicity (repeated exposure) - Category 2 - (H373)
 Chronic aquatic toxicity - Category 2 - (H411)

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Contains toluene, Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2), Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%), hydrocarbons, C6, isoalkanes, <5% n-hexane

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
 H361 - Suspected of damaging fertility or the unborn child
 H373 - May cause damage to organs through prolonged or repeated exposure
 H411 - 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/vapors/spray
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P331 - Do NOT induce vomiting

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Unknown Acute Toxicity

4.7% of the mixture consists of ingredient(s) of unknown toxicity

2.3. Other hazards**Environmental properties**

Should not be released into the environment.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture**Hazardous ingredients**

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Reg. 1272/2008)
toluene	203-625-9	01-2119471310-51	108-88-3	25 - 50	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) Repr. 2 (H361d) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Chronic 3 (H412)
Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2)	271-267-0	01-2119471477-29	68527-27-5	10 - 25	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411)
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%)	295-298-4	01-2119486400-43	91995-38-9	10 - 25	STOT SE 3 (H336) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Muta. 1B (H340) Carc. 1B (H350) Aquatic Chronic 2 (H411) Flam. Liq. 1 (H224)
ETHANOL	200-578-6	01-2119457610-43	64-17-5	5 - 10	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)
hydrocarbons, C6, isoalkanes, <5% n-hexane	931-254-9	01-2119484651-34	^	5 - 10	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411)
2-ethoxy-2-methylpropane	211-309-7	01-2119452785-29	637-92-3	5 - 10	Flam. Liq. 2 (H225) STOT SE 3 (H336)
hexene	246-768-2	01-2120776981-39	25264-93-1	2.5 - 5	Flam. Liq. 2 (H225) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Repr. 2 (H361f) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

Other constituents required for disclosure

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Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)
2-methylbutane	201-142-8	78-78-4	2.5 - 5	Flam. Liq. 1 (H224) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)
Pentane	203-692-4	109-66-0	2.5 - 5	Flam. Liq. 2 (H225) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)
oct-1-ene	203-893-7	111-66-0	1 - 2.5	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
n-Hexane	203-777-6	110-54-3	0.1 - 1	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) Repr. 2 (H361f) STOT SE 3 (H336) STOT RE 2 (H373) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)
Xylene (mixed isomers o, m, p)	215-535-7	1330-20-7	0.1 - 1	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Chronic 3 (H412)
Benzene	200-753-7	71-43-2	0.1 - 1	Flam. Liq. 2 (H225) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Carc. 1A (H350) Muta. 1B (H340) STOT RE 1 (H372) Asp. Tox. 1 (H304) Aquatic Chronic 3 (H412)

For the full text of the H-Statements mentioned in this Section, see Section 16.

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE. Show this material safety data sheet to the doctor in attendance.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Keep eye wide open while rinsing.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.



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Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract. If not breathing, give artificial respiration. Call a physician immediately.
Ingestion	Call a POISON CENTER or doctor/physician if exposed or you feel unwell. Clean mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Smallest quantities reaching the lungs through swallowing or subsequent vomiting may result in lung edema or pneumonia.
Protection of First-aiders	Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Eye contact	Burning feeling and temporary redness.
Skin contact	Reddening, irritation.
Inhalation	Inhalation of vapours may cause headache, nausea, vomiting and an altered state of consciousness.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Notes to physician Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). ABC powder. Foam. Cool containers / tanks with water spray. Water spray, fog or regular foam.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard	Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Flash back possible over considerable distance. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.
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5.3. Advice for fire-fighters

Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit. In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and
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self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Other information

Cool down any tanks and surfaces exposed to fire by spraying abundantly with water. Use water to cool tanks and parts exposed to the thermal flux not caught up in the flames. Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****General Information**

Except in case of small spillages. The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

If required, notify relevant authorities according to all applicable regulations.

Evacuate non-essential personnel. For personal protection see section 8.

Stop or contain leak at the source, if safe to do so. Cut off the electric power supply if this operation causes no sparks in the area containing vapors from the product. Stay upwind. In case of large spillages, alert occupants in downwind areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). In case of important spillages: risk of fire or explosion. Cover discharges with foam in order to reduce the risks of ignition. Vapours are heavier than air and may spread near ground level to sources of ignition.

Advice for non-emergency personnel

Do not touch or walk through spilled material. For personal protection see section 8. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Advice for emergency responders

Take all appropriate steps to avoid fire, explosion and inhalation hazards to the rescuers including the use of breathing apparatus. In case of.

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and antistatic material. Work gloves (preferably gauntlets) providing adequate chemical resistance. Remarks: Gloves made of PVA are not water-resistant, and are not suitable for emergency use. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and/or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory protection. A half or full-face respirator with filter(s) for organic vapours (and when applicable: for H₂S). A Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

6.2. Environmental precautions**General Information**

Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. The product should not be allowed to enter drains, water courses or the soil.

Prevention of fire and explosion. A vapor suppressing foam may be used to reduce vapors. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. In case of spill in river,



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suspend the use of the water downstream to the spillpoint.

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

Dam up. Ground and bond containers when transferring material. Keep in suitable, closed containers for disposal.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Use clean non-sparking tools to collect absorbed material.

6.4. Reference to other sections

Personal Protective Equipment See Section 8 for more detail.

Waste treatment See section 13.

Other information Recommended measures are based on the most likely spillage scenarios for this material. However, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.
For this reason, local experts should be consulted when necessary.
Local regulations may also prescribe or limit actions to be taken.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling**Advice on safe handling**

NEVER ATTEMPT TO PRIME THE CONTAINER SIPHON BY SUCKING WITH THE MOUTH.

Avoid contact with skin, eyes and clothing. Prevent the formation of vapors, mists and aerosols. Take precautionary measures against static electricity. Ensure that all relevant regulations regarding explosive atmospheres, handling and storage facilities of flammable products, are followed. The inspection, cleaning and maintenance of storage containers require the application of strict procedures and must be entrusted to qualified personnel (internal or external).

Ensure adequate ventilation. Vapors may form explosive mixtures with air. Do not smoke. Avoid breathing vapors or mists.

Do not use compressed air for filling, discharging, or handling operations. Never pierce, drill, grind, cut, saw or weld any empty container.

For personal protection see section 8.

Technical measures

Ensure adequate ventilation.

WHILE MOVING THE PRODUCT: To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Take all necessary precautions to prevent water from entering the containers, tanks, transfer lines etc...

Prevention of fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Design installations (machinery and equipment) to prevent burning product from spreading (tanks, retention systems, interceptors (traps) in drainage systems). OPERATE ONLY ON COLD AND DEGASSED TANKS IN VENTILATED PREMISES (TO AVOID RISK OF EXPLOSION). Do not use compressed air for filling, discharging or handling. Empty containers may contain



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flammable or explosive vapors. Do not allow splash loading and ensure that the product is poured slowly, particularly at the beginning of the operation.

Hygiene measures

When using, do not eat, drink or smoke.
 Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs. Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product.
 Use personal protective equipment as required. Avoid breathing vapors, mist or gas. IF ON SKIN: Wash skin with soap and water.
 Remove contaminated clothing and shoes. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

7.2. Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation.
 . All the electric installations, including the lighting of rooms that may contain this product, must be adapted to the risk area, in compliance with the European ATEX directives. Take precautionary measures against static discharges.
 . Ensure all equipment is electrically grounded before beginning transfer operations.
 Storage installations should be designed with adequate bunds so as to prevent ground or water pollution in case of leaks or spills. Do not remove the hazard labels of the containers (even if they are empty).
 . Store the packed products (drums, samples, cans ...) in properly ventilated rooms, away from damp, heat and any potential source of ignition.
 . Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Keep containers tightly closed and properly labelled. Store separately from oxidising agents.

Materials to Avoid

Strong oxidizing agents. Strong bases.

Packaging material

Use only containers, seals, pipes, etc... made in a material suitable for use with aromatic hydrocarbons,

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

Must not be used for cleaning processes. Restricted to professional users.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters**Exposure limits**

Ingredients with workplace control parameters

Chemical Name	European Union
toluene 108-88-3	TWA 50 ppm TWA 192 mg/m ³ STEL 100 ppm STEL 384 mg/m ³ S*

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Other constituents required for disclosure

Chemical Name	European Union
2-methylbutane 78-78-4	TWA 1000 ppm TWA 3000 mg/m ³
Pentane 109-66-0	TWA 1000 ppm TWA 3000 mg/m ³
n-Hexane 110-54-3	TWA 20 ppm TWA 72 mg/m ³
Xylene (mixed isomers o, m, p) 1330-20-7	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ S*
Benzene 71-43-2	S* TWA 1 ppm TWA 3.25 mg/m ³

Legend

See section 16

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
toluene 108-88-3	384 mg/m ³ (inhalation)	384 mg/m ³ (inhalation)	192 mg/m ³ (inhalation) 384 mg/kg bw/day (dermal)	192 mg/m ³ (inhalation)
Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2) 68527-27-5	1300 mg/m ³ /15min (inhalation)	1100 mg/m ³ /15min (inhalation)		840 mg/m ³ /8h (inhalation)
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9	1300 mg/m ³ /15min (inhalation)	1100 mg/m ³ /15min (inhalation)		840 mg/m ³ /8h (inhalation)
ETHANOL 64-17-5		1900 mg/m ³ /15min Inhalation	343 mg/kg/8h Dermal 950 mg/m ³ /8h Inhalation	
hydrocarbons, C6, isoalkanes, <5% n-hexane ^			5306 mg/m ³ Inhalation 13964 mg/kg bw/day Dermal	
2-ethoxy-2-methylpropan e 637-92-3	2800 mg/m ³ /15 min (inhalation)		352 mg/m ³ /8h (inhalation) 6767 mg/kg/8h (dermal)	105 mg/m ³ /8h (inhalation)
hexene 25264-93-1			75 mg/m ³ (inhalation) 11 mg/kg bw/day (dermal)	

DNEL Consumer



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Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
toluene 108-88-3	226 mg/m ³ (inhalation)	226 mg/m ³ (inhalation)	226 mg/kg bw/day (dermal) 56.5 mg/m ³ (inhalation) 8.13 mg/kg bw/day (oral)	
Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2) 68527-27-5	1200 mg/m ³ /15min (inhalation)	640 mg/m ³ /15min (inhalation)		180 mg/m ³ /24h (inhalation)
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9	1200 mg/m ³ /15min (inhalation)	640 mg/m ³ /15min (inhalation)		180 mg/m ³ /24h (inhalation)
ETHANOL 64-17-5		950 mg/m ³ /15min Inhalation	206 mg/kg/24h Dermal 114 mg/m ³ /24h Inhalation 87 mg/kg/24h Oral	
hydrocarbons, C6, isoalkanes, <5% n-hexane ^			1131 mg/m ³ Inhalation 1377 mg/kg bw/day Dermal 1301 mg/kg bw/day Oral	
2-ethoxy-2-methylpropan e 637-92-3	1680 mg/m ³ /15 min (inhalation)		4060 mg/kg/24h (dermal) 105 mg/m ³ /24h (inhalation) 12.5 mg/kg/24h (oral)	63 mg/m ³ /24h (inhalation)
hexene 25264-93-1			16 mg/m ³ (inhalation) 5.3 mg/kg bw/day (dermal) 4 mg/kg bw/day (oral)	

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
toluene 108-88-3	0.68 mg/l fw 0.68 mg/l mw 0.68 mg/l or	16.39 mg/kg dw fw 16.39 mg/kg dw mw	2.89 mg/kg dw		13.61 mg/l	
ETHANOL 64-17-5	0.96 mg/l fw 0.79 mg/l mw 2.75 mg/l or	3.6 mg/kg dw fw				0.72 g/kg food
2-ethoxy-2-methylpropane 637-92-3	0.51 mg/L (aqua - freshwater) 0.017 mg/L (aqua - marine water) 1.1mg/L (aqua - intermittent)	28.5 mg/kg d.w. (freshwater sediment) 1.45 mg/kg d.w. (marine sediment)	2.41 mg/kg w.w.		12.5 mg/L	

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	releases)					
hexene 25264-93-1	0.140 mg/l fw 0.140 mg/l mw	5.95 mg/kg dw fw 5.95 mg/kg dw mw	1.3 mg/kg dw			

8.2. Exposure controls

Occupational Exposure Controls

Engineering Measures

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal Protective Equipment

General Information

These recommendations apply to the product as supplied. If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

Respiratory protection

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

Eye Protection

Goggles. If splashes are likely to occur, wear: Safety glasses with side-shields. or. Face-shield.

Skin and body protection

Impermeable gloves. Antistatic boots. Wear fire/flammable resistant/retardant clothing. Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing. Protective shoes or boots.

Hand Protection

Hydrocarbon-proof gloves for aromatic hydrocarbons. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
. Note. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.

Repeated or prolonged exposure			
Glove material	Glove thickness	Break through time	Remarks
PVA	(*)	> 480 min	EN 374 (*) any thickness
Fluorinated rubber	(*)	> 480 min	EN 374 (*) any thickness
Nitrile rubber	> 0.5 mm	> 480 min	EN 374

In case of contact through splashing:			
Glove material	Glove thickness	Break through time	Remarks
Nitrile rubber	> 0.3 mm	> 60 min	EN 374

Environmental exposure controls

General Information

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains.



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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Color		colorless	
Physical State @20°C		liquid	
Odor		Petroleum distillates	
Odor Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range	36 - 125 °C 97 - 257 °F		EN ISO 3405 EN ISO 3405
Flash point	<= -30 °C <= -22 °F		ASTM D 93 ASTM D 93
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Vapor Pressure	590 hPa	@ 37.8 °C	ISO 13016-1
Vapor density	> 1	(Air = 1)	
Relative density	0.75		
Density	748 kg/m ³	@ 15 °C	ISO 12185
Water solubility		slightly soluble	
Solubility in other solvents		No information available	
logPow		Not applicable	
Autoignition temperature	> 230 °C > 446 °F		
Decomposition temperature		Not applicable	
Viscosity, kinematic	< 1 mm ² /s	@ 40 °C	ISO 3104
Explosive properties	Not considered explosive based on chemical structure and oxygen balance considerations		
Oxidizing Properties	This product is not considered oxidising based on chemical structure considerations		
Possibility of hazardous reactions	None under normal processing		

9.2. Other information

Freezing Point		No information available
Conductivity	> 1 pS/m	ASTM D2624

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information No information available.

10.2. Chemical stability

Stability Stable under recommended storage conditions.



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10.3. Possibility of hazardous reactions**Hazardous Reactions** None under normal processing.10.4. Conditions to avoid**Conditions to avoid** Heat, flames and sparks. Take precautionary measures against static discharges. Heating in air.10.5. Incompatible materials**Materials to Avoid** Strong oxidizing agents. Strong bases.10.6. Hazardous Decomposition Products**Hazardous Decomposition Products** None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Carbon oxides.**Section 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**Acute toxicity Local effects Product Information**

- Skin contact** . Reddening, irritation.
- Eye contact** . Burning feeling and temporary redness.
- Inhalation** . Inhalation of vapours may cause headache, nausea, vomiting and an altered state of consciousness.
- Ingestion** . Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
toluene	5580 mg/kg bw (rat)	> 5000 mg/kg bw (rabbit)	28.1 mg/L (Rat-vapour) 4h
Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2)	LD50 > 5000 mg/kg bw (rat - OECD TG 401)	LD50 > 2000 mg/kg bw (rabbit - OECD TG 402 - under occlusive conditions)	LC50 (4h) > 5610 mg/m ³ air (vapor) (rat - OECD 403)
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%)	LD50 > 5000 mg/kg bw (rat - OECD TG 401)	LD50 > 2000 mg/kg bw (rabbit - OECD TG 402 - under occlusive conditions)	LC50 (4h) > 5610 mg/m ³ air (vapor) (rat - OECD 403)
ETHANOL	LD50 10470 mg/kg (Rat)	LD50 15800 mg/kg (Rabbit)	LC50 30000 mg/m ³
hydrocarbons, C6, isoalkanes, <5% n-hexane	LD50 >16750 mg/kg (rat - OECD 401)	LD50 >3350 mg/kg (rabbit - OECD 402)	LC50 (4h) 73860 ppm (rat - vapour - OECD 403) LC50 (4h) 259354 mg/m ³ (rat - vapour - OECD 403)
2-ethoxy-2-methylpropane	> 2003 mg/kg bw (rat - OECD	> 2000 mg/kg bw (rabbit - OECD	> 5880 mg/m ³ (Rat) 4 h



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	401)	402)	
hexene	LD50 2000 - 10000 mg/kg bw (rat - OECD 420)	LD50 > 2000 mg/kg bw (rat - OECD 402)	

Sensitization**Sensitization**

The current toxicological knowledge allows to not classify the product as a sensitizer.

Specific effects**Carcinogenicity**

May cause cancer.

Chemical Name	European Union
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9	Carc. 1B (H350)

Other constituents required for disclosure

Chemical Name	European Union
Benzene 71-43-2	Carc. 1A (H350)

Mutagenicity

. May cause genetic defects.

Chemical Name	European Union
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9	Muta. 1B (H340)

Other constituents required for disclosure

Chemical Name	European Union
Benzene 71-43-2	Muta. 1B (H340)

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Chemical Name	European Union
toluene 108-88-3	Repr. 2 (H361d)

Other constituents required for disclosure

Chemical Name	European Union
n-Hexane 110-54-3	Repr. 2 (H361f)

Repeated dose toxicity**Target Organ Effects (STOT)****Specific target organ systemic toxicity (single exposure)**

Vapors may cause drowsiness and dizziness.

Specific target organ systemic toxicity (repeated exposure)

May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Other information**Neurological effects**

No information available.

Other adverse effects

No information available.



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Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
toluene 108-88-3	EC50 (3 h) 134 mg/l Chlorella vulgaris	EC50 (48h) 3.78mg/l Daphnia magna	LC50 (96h) 5.5 mg/l Oncorhynchus kisutch	-
Naphtha (petroleum), full-range alkylate, butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2) 68527-27-5	EL50(72h) 3.1 mg/l (Selenastrum capricornutum/Pseudokirchn erella subcapitata - OECD 201)	EL50(48h) 4.5 mg/l (Daphnia magna - OECD 202)	LL50(96h) 8.2 mg/l (Pimephales promelas)	
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9	EL50(72h) 3.1 mg/l (Selenastrum capricornutum/Pseudokirchn erella subcapitata)	EL50(48h) 4.5 mg/l (Daphnia magna)	LL50(96h) 8.2 mg/l (Pimephales promelas)	
ETHANOL 64-17-5	EC50 (72h) 275 mg/l Chlorella vulgaris (OECD 201)	EC50 (48h) 5012 mg/l Ceriodaphnia dubia (ASTM E729-80)	LC50 (96h) 14200 mg/l Pimephales Promelas (EPA)	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min
hydrocarbons, C6, isoalkanes, <5% n-hexane ^	EC50r (72h) 55 mg/l (Pseudokirchneriella subcapitata)	EC50 (48h) 3.87 mg/l (Daphnia magna) EL50 (48h) 31.9 mg/l (Daphnia magna)	LC50 (96h) 18.27 mg/l (Oncorhynchus mykiss)	
hexene 25264-93-1	EC50(72h) 0.00093 - 1.8 mg/l (Pseudokirchneriella subcapitata - OECD 201)	EC50(48h) 0.0028 - 4.400 mg/l (Daphnia magna - OECD 202)	LC50(96h) 0.0034 - 6.6 mg/l (Oncorhynchus mykiss - OECD 203)	EC50(3h) 1 g/l

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
toluene 108-88-3	NOEC(72h) 10 mg/l Skeletonema costatum	NOEC (7d) 0.74 mg/l (Ceriodaphnia dubia) EC50 (7d) 3.23 mg/l (Ceriodaphnia dubia) LOEC (7d) 2.76 mg/l (Ceriodaphnia dubia)	NOEC (40d) 1.39 mg/l (Oncorhynchus kisutch) LOEC (40d) 2.77 mg/l (Oncorhynchus kisutch)	
Naphtha (petroleum), full-range alkylate,	NOELR(96h) 51 mg/l (based on cell density -			



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butane-contg. (benzene < 0,1% - toluene < 1% - n-hexane < 1% - Flam. Liq. 2) 68527-27-5	Pseudokirchnerella subcapitata)			
Hydrocarbons, C4-6, depentanizer lights, arom. Hydrotreater (benzene < 10% - toluene < 3% - n-hexane < 3%) 91995-38-9			NOEL (14/28d) > 2.6 mg/l (Read across from Daphnia magna)	
ETHANOL 64-17-5		NOEC (10d) 9.6 mg/l Ceriodaphnia dubia	NOEC (30d) 245 mg/l (ECOSAR)	
hydrocarbons, C6, isoalkanes, <5% n-hexane ^	NOELR (72h) 3.034 mg/l (Pseudokirchneriella subcapitata)	NOELR (21d) 7.138 mg/l (Daphnia magna)	NOELR (28d) 4.089 mg/l (Oncorhynchus mykiss)	
hexene 25264-93-1		NOEC(21d) 0.0194 mg/l (Daphnia magna - OECD 211)		

Effects on terrestrial organisms

No information available.

12.2. Persistence and degradability**General Information**

No information available.

12.3. Bioaccumulative potential**Product Information**

No information available.

logPow

Not applicable

Component Information

Chemical Name	log Pow
toluene - 108-88-3	2.73
ETHANOL - 64-17-5	-0.35
hydrocarbons, C6, isoalkanes, <5% n-hexane - ^	3.6

12.4. Mobility in soil**Soil**

Given its physical and chemical characteristics, the product is generally mobile in the ground. It may contaminate ground water.

Air

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.

Water

The product spreads on the surface of the water. A small amount may solubilise in water.

12.5. Results of PBT and vPvB assessment



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PBT and vPvB assessment No information available.

12.6. Other adverse effects

General Information No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated packaging Empty containers may contain flammable or explosive vapors. Do not burn, or use a cutting torch on, the empty drum. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EWC Waste Disposal No. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

ADR/RID

UN/ID No	UN1203
Proper shipping name	GASOLINE
Proper shipping name	GASOLINE
Hazard class	3
Packing Group	II
ADR/RID-Labels	3
Environmental hazard	Yes
Classification Code	F1
Special Provisions	243, 534, 664
Tunnel Restriction Code	(D/E)
ADR Hazard Id (Kemmler Number)	33
Description	UN1203, GASOLINE, 3, II, (D/E), Environmentally hazardous
Excepted Quantity	E2
Limited quantity	1 L

IMDG/IMO

UN/ID No	UN1203
Proper shipping name	GASOLINE
Hazard class	3
Packing Group	II
Marine pollutant	Yes
EmS No.	F-E, S-E
Description	UN1203, GASOLINE, 3, II, (-30°C C.C.), MARINE POLLUTANT
Special Provisions	243
Excepted Quantity	E2



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Limited quantity	1 L
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ICAO/IATA

UN/ID No	UN1203
Proper shipping name	Gasoline
Hazard class	3
Packing Group	II
ERG Code	3H
Special Provisions	A100
Description	UN1203, Gasoline, 3, II
Excepted Quantity	E2
Limited quantity	1 L

ADN

UN/ID No	UN1203
Proper shipping name	GASOLINE
Proper shipping name	GASOLINE
Hazard class	3
Hazard Labels	3
Packing Group	II
Environmental hazard	Yes
Classification Code	F1
Special Provisions	243, 534
Description	UN1203, GASOLINE, 3, II, Environmentally hazardous
Excepted Quantity	E2
Limited quantity	1 L
Ventilation	VE01
Equipment Requirements	PP, EX, A

Section 15: REGULATORY INFORMATION

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

European Union

REACH

This mixture contains only ingredients which have been registered according to Regulation (EC) No. 1907/2006 (REACH).

Other regulations

DIRECTIVE 2010/75/EU on industrial emissions

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All the substances contained in this product are listed or exempted from listing in the following inventories:
 Europe (EINECS/ELINCS/NLP)
 U.S.A. (TSCA)



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Japan (ENCS)

Further information

No information available

15.2. Chemical Safety Assessment**Chemical Safety Assessment**

Risk management measures and safety conditions of use are included in the relevant sections of the SDS

Section 16: OTHER INFORMATION

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

PEL: Permissible exposure limit

REL: Recommended exposure limit

TLV: Threshold Limit Values

+

Sensitizer

**

Hazard Designation

M:

Mutagen

*

Skin designation

C:

Carcinogen

R:

Toxic to reproduction



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Revision Note (M)SDS sections updated. 2. 3. 8. 9. 11. 15. 16.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet