

DIESEL INJECTOR & TURBO CLEANER FOR FLEETS

MATERIAL SAFETY DATA SHEET

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

1.1. Product identifier

Product form:	Mixture
Trade name:	Diesel Injector & Turbo Cleaner
Product code:	381
Product group:	End product

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

Use of the substance/mixture:

1.3. Details of the supplier of the safety data sheet

Fast Racing Fuels
20 Brand Road, Brand Park, Unit 6, Westmead, Durban, South Africa, 3610
T +27 (67) 777 2000
info@fastracingfuels.co.za - www.fastracingfuels.co.za

1.4. Emergency number: +27 (67) 777 2000

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Flammable liquids, Category 2	H225
Acute toxicity (dermal), Category 5	H313
Skin corrosion/irritation, Category 2	H315
Germ cell mutagenicity, Category 1B	H340
Carcinogenicity, Category 1A	H350
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity – Repeated exposure, Category 1	H372
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

Full text of H-statements: see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA):



Signal word (GHS-ZA):

Hazardous ingredients:

Danger

cyclohexane, toluene, naphtha (petroleum), hydrodesulfurized heavy, kerosine (petroleum), heptane, octane, methylcyclohexane, xylene, mixture of isomers, butane (containing $\geq 0.1\%$ butadiene), naphtha, heavy aromatic, 2-Ethylhexanol

Hazard statements (GHS ZA):

- H225 - Highly flammable liquid and vapour.
- H313 - May be harmful in contact with skin.
- H315 - Causes skin irritation.
- H336 - May cause drowsiness or dizziness.
- H340 - May cause genetic defects.
- P501 - _P_501_EU.
- H350 - May cause cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life.
- H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS ZA):

- P101 - If medical advice is needed, have product container or label at hand.
- P102 - Keep out of reach of children.
- P103 - Read label before use.
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground and bond container and receiving equipment.
- P241 - Use explosion-proof equipment.
- P242 - Use non-sparking tools.
- P243 - Take action to prevent static discharges.
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P312 - Call a POISON CENTER or doctor if you feel unwell.
 P314 - Get medical advice/attention if you feel unwell.
 P321 - Specific treatment (see supplemental first aid instruction on this label).
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P370+P378 - In case of fire: Use media other than water to extinguish.
 P391 - Collect spillage.
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 P403+P235 - Store in a well-ventilated place. Keep cool.
 P405 - Store locked up.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects:

Highly flammable liquid and vapour, May cause cancer, May cause genetic defects, Causes damage to organs through prolonged or repeated exposure, May cause drowsiness or dizziness, Harmful in contact with skin, Causes skin irritation, Very toxic to aquatic life, Toxic to aquatic life with long lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
naphtha (petroleum), hydrodesulfurized heavy	CAS-No.: 64742-82-1	≥ 20	Flam. Liq. 3, H226 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 STOT SE 3, H336 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Ethylhexyl nitrate	CAS-No.: 27247-96-7	≥ 5 – < 50	Flam. Liq. 4, H227 Acute Tox. Not classified (Oral) Aquatic Acute 2, H401
kerosine (petroleum)	CAS-No.: 8008-20-6	< 20	Flam. Liq. 3, H226 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
heptane	CAS-No.: 142-82-5	≥ 1 – < 20	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
octane	CAS-No.: 111-65-9	< 20	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
methylcyclohexane	CAS-No.: 108-87-2	≥ 1 – < 20	Flam. Liq. 2, H225 Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Alkanes, (C=11-15)-iso- -	CAS-No.: 90622-58-5	≥ 1 – < 5	Aquatic Acute 1, H400
cyclohexane	CAS-No.: 110-82-7	< 5	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
toluene	CAS-No.: 108-88-3	< 5	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401
xylene, mixture of isomers	CAS-No.: 1330-20-7	< 5	Flam. Liq. 3, H226 Acute Tox. 5 (Oral), H303 Acute Tox. 5 (Dermal), H313 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Aquatic Acute 2, H401
butane (containing $\geq 0.1\%$ butadiene)	CAS-No.: 106-97-8	< 5	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Muta. 1B, H340 Carc. 1A, H350
2-Ethylhexanol	CAS-No.: 104-76-7	< 5	Flam. Liq. 4, H227 Acute Tox. 5 (Oral), H303 Acute Tox. 4 (Dermal), H312 Aquatic Acute 3, H402
naphtha, heavy aromatic	CAS-No.: 64742-94-5	< 5	Flam. Liq. 4, H227 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

First-aid measures general:

IF exposed or concerned: Get medical advice/attention.
Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation:

Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact:

Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact:

Rinse eyes with water as a precaution.

First-aid measures after ingestion:

Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects: May cause drowsiness or dizziness.
Symptoms/effects after skin contact: Irritation.

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

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures: No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment:	Collect spillage.
Methods for cleaning up:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information:	Dispose of materials or solid residues at an authorized site.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling:	Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
Hygiene measures:	Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Ground/bond container and receiving equipment.
Storage conditions:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.
Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection: Protective gloves
Eye protection: Safety glasses
Skin and body protection: Wear suitable protective clothing
Respiratory protection: [In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Appearance:	No data available
Colour:	No data available
Odour:	No data available
Odour threshold:	No data available
pH:	No data available
pH solution:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Relative evaporation rate (ether=1):	No data available
Melting point:	Not applicable
Freezing point:	No data available
Boiling point:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Not applicable
Vapour pressure:	No data available
Vapour pressure at 50 °C:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	0.822
Relative density of saturated gas/air mixture:	No data available
Density:	No data available
Relative gas density:	No data available

Solubility:	No data available
Partition coefficient n-octanol/water (Log Pow):	No data available
Partition coefficient n-octanol/water (Log Kow):	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Explosive limits:	No data available
Lower explosive limit (LEL):	No data available
Upper explosive limit (UEL):	No data available

9.2. Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity (oral):	Not classified
Acute toxicity (dermal):	May be harmful in contact with skin.
Acute toxicity (inhalation):	Not classified

Diesel Injector & Turbo Cleaner

ATE ZA (Dermal)	3104.794 mg/kg bodyweight
naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	> 7630 mg/m ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
kerosine (petroleum) (8008-20-6)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 420, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.28 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
heptane (142-82-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 29.29 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
octane (111-65-9)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral (one dose), 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))

LC50 Inhalation - Rat	> 24.88 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
methylcyclohexane (108-87-2)	
LD50 oral rat	> 3200 mg/kg bodyweight (Rat, Read-across, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 26.3 mg/l (1 h, Rat, Male, Experimental value, Inhalation (vapours))
cyclohexane (110-82-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 19.07 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
toluene (108-88-3)	
LD50 oral rat	5580 mg/kg bodyweight (Equivalent or similar to EU Method B.1, Rat, Male, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 5000 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	28.1 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
xylene, mixture of isomers (1330-20-7)	
LD50 oral rat	> 4000 mg/kg bodyweight (Equivalent or similar to EU Method B.1, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 4200 mg/kg bodyweight (4 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	29.09 mg/l (Equivalent or similar to EU Method B.2, 4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
naphtha,heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 Inhalation - Rat	> 5 mg/l (4 h, Rat)

2-Ethylhexyl nitrate (27247-96-7)

LD50 oral rat > 9640 mg/kg Source: IUCLID

2-Ethylhexanol (104-76-7)

LD50 oral rat 1516 – 2774 mg/kg Source: IUCLID
LD50 dermal rabbit 1970 mg/kg Source: NLM, THOMSON

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: May cause genetic defects.
Carcinogenicity: May cause cancer.
Reproductive toxicity: Not classified
STOT-single exposure: May cause drowsiness or dizziness.

naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

STOT-single exposure May cause drowsiness or dizziness.

kerosine (petroleum) (8008-20-6)

STOT-single exposure May cause drowsiness or dizziness.

heptane (142-82-5)

STOT-single exposure May cause drowsiness or dizziness.

octane (111-65-9)

STOT-single exposure May cause drowsiness or dizziness.

methylcyclohexane (108-87-2)

STOT-single exposure May cause drowsiness or dizziness.

cyclohexane (110-82-7)

STOT-single exposure May cause drowsiness or dizziness.

toluene (108-88-3)

STOT-single exposure May cause drowsiness or dizziness.
STOT-repeated exposure: Causes damage to organs through prolonged or repeated exposure.

naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

Causes damage to organs through prolonged or repeated exposure.

toluene (108-88-3)

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:

Not classified

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general:

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute):

Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic):

Toxic to aquatic life with long lasting effects.

naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

BCF - Other aquatic organisms [1]:

10 – 2500 (BCFWIN, Calculated value)

Partition coefficient n-octanol/water (Log Pow):

2.1 – 6 (Calculated)

Organic Carbon Normalized Adsorption Coefficient (Log Koc):

1.783 – 2.36 (log Koc, PCKOCWIN v1.66, Calculated value)

kerosine (petroleum) (8008-20-6)

BCF - Other aquatic organisms [1]:

207.7 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)

Partition coefficient n-octanol/water (Log Pow):

6.23 (Estimated value, KOWWIN)

heptane (142-82-5)

EC50 72h - Algae [1]:

4.338 mg/l (Pseudokirchneriella subcapitata, Fresh water, QSAR, Biomass)

BCF - Other aquatic organisms [1]:

552 (BCFBAF v3.00, Calculated value)

Partition coefficient n-octanol/water (Log Pow):

4.5 (Literature)

Organic Carbon Normalized Adsorption Coefficient (Log Koc):

2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

octane (111-65-9)

LC50 - Fish [1]

2.587 mg/l (96 h, Oncorhynchus mykiss, Fresh water, Calculated value)

EC50 - Crustacea [1]

0.3 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

BCF - Other aquatic organisms [1]

198.7 (105 minutes, Mytilus edulis, Static system, Marine water, Experimental value, Fresh weight)

Partition coefficient n-octanol/water (Log Pow)	5.15 (Literature study)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.64 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
methylcyclohexane (108-87-2)	
LC50 - Fish [1]	2.07 mg/l (Equivalent or similar to OECD 203, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	95 – 321 (8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.88 (Literature study)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.37 (log Koc, SRC PCKOCWIN v2.0, QSAR)
cyclohexane (110-82-7)	
LC50 - Fish [1]	4.53 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Measured concentration)
EC50 - Crustacea [1]	0.9 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	9.317 mg/l (Equivalent or similar to OECD 201, Pseudokirchneriella subcapitata, Experimental value, Growth rate)
BCF - Fish [1]	167 l/kg (Pimephales promelas, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.44 (Experimental value, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.89 (log Koc, Calculated value)
toluene (108-88-3)	
LC50 - Fish [1]	5.5 mg/l (96 h, Oncorhynchus kisutch, Flow-through system, Fresh water, Experimental value, Lethal)
BCF - Fish [1]	90 (72 h, Leuciscus idus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.73 (Experimental value, 20 °C)
xylene, mixture of isomers (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal)
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)

Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Alkanes, (C=11-15)-iso- - (90622-58-5)	
EC50 - Crustacea [1]	< 100 mg/l Source: IUCLID
naphtha,heavy aromatic (64742-94-5)	
LC50 - Fish [1]	2.34 mg/l (96 h, Oncorhynchus mykiss, Fresh water)
EC50 - Crustacea [1]	0.95 mg/l (48 h, Daphnia magna)
EC50 72h - Algae [1]	2.5 mg/l (Skeletonema costatum)
Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1
2-Ethylhexyl nitrate (27247-96-7)	
LC50 - Fish [1]	1.265 mg/l Source: ECOSAR
Partition coefficient n-octanol/water (Log Pow)	4.12
2-Ethylhexanol (104-76-7)	
LC50 - Fish [1]	17.1 mg/l Source: Directive 84/449/EEC, C1, GLP, IUCLID
EC50 - Crustacea [1]	39 mg/l Source: Directive 84/449/EEC, C. 2, GLP, IUCLID
ErC50 algae	11.5 mg/l Source: Directive 87/302/EEC, C. 2, GLP, IUCLID
Partition coefficient n-octanol/water (Log Pow)	2.73

12.2. Persistence and degradability

Diesel Injector & Turbo Cleaner

Persistence and degradability No additional information available

naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

Persistence and degradability Readily biodegradable in water.

kerosine (petroleum) (8008-20-6)

Persistence and degradability Readily biodegradable in water.

heptane (142-82-5)

Persistence and degradability Biodegradable in the soil. Readily biodegradable in water.

Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	0.06 g O ₂ /g substance
ThOD	3.52 g O ₂ /g substance
octane (111-65-9)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
ThOD	3.5 g O ₂ /g substance
methylcyclohexane (108-87-2)	
Persistence and degradability	Not readily biodegradable in water.
cyclohexane (110-82-7)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.22 g O ₂ /g substance
ThOD	3.425 g O ₂ /g substance
toluene (108-88-3)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.15 g O ₂ /g substance
Chemical oxygen demand (COD)	2.52 g O ₂ /g substance
ThOD	3.13 g O ₂ /g substance
BOD (% of ThOD)	0.69
xylene, mixture of isomers (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
naphtha, heavy aromatic (64742-94-5)	
Persistence and degradability	Not readily biodegradable in water.
12.3. Bioaccumulative potential	
Diesel Injector & Turbo Cleaner	
Bioaccumulative potential	No additional information available
naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)	
BCF - Other aquatic organisms [1]	10 – 2500 (BCFWIN, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	2.1 – 6 (Calculated)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.783 – 2.36 (log Koc, PCKOCWIN v1.66, Calculated value)
Bioaccumulative potential	Bioaccumable.
kerosine (petroleum) (8008-20-6)	
BCF - Other aquatic organisms [1]	207.7 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	6.23 (Estimated value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
heptane (142-82-5)	
BCF - Other aquatic organisms [1]	552 (BCFBAF v3.00, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	4.5 (Literature)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
octane (111-65-9)	
BCF - Other aquatic organisms [1]	198.7 (105 minutes, Mytilus edulis, Static system, Marine water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	5.15 (Literature study)
octane (111-65-9)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.64 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
methylcyclohexane (108-87-2)	
BCF - Fish [1]	95 – 321 (8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.88 (Literature study)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.37 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

cyclohexane (110-82-7)

BCF - Fish [1]	167 l/kg (Pimephales promelas, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.44 (Experimental value, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.89 (log Koc, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

toluene (108-88-3)

BCF - Fish [1]	90 (72 h, Leuciscus idus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.73 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

xylene, mixture of isomers (1330-20-7)

BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

naphtha,heavy aromatic (64742-94-5)

Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1
Bioaccumulative potential	Bioaccumable.

2-Ethylhexyl nitrate (27247-96-7)

Partition coefficient n-octanol/water (Log Pow)	4.12
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2-Ethylhexanol (104-76-7)

Partition coefficient n-octanol/water (Log Pow)	2.73
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12.4. Mobility in soil

Diesel Injector & Turbo Cleaner

Mobility in soil	No additional information available
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naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

Partition coefficient n-octanol/water (Log Pow)	2.1 – 6 (Calculated)
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naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.783 – 2.36 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

kerosine (petroleum) (8008-20-6)

Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	6.23 (Estimated value, KOWWIN)
Ecology - soil	Low potential for adsorption in soil.

heptane (142-82-5)

Surface tension	19.66 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Pow)	4.5 (Literature)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

octane (111-65-9)

Surface tension	21.4 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Pow)	5.15 (Literature study)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.64 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

methylcyclohexane (108-87-2)

Surface tension	23.29 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Pow)	3.88 (Literature study)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.37 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

cyclohexane (110-82-7)

Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	3.44 (Experimental value, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.89 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

toluene (108-88-3)

Surface tension	27.73 mN/m (25 °C, 0.05 %)
Partition coefficient n-octanol/water (Log Pow)	2.73 (Experimental value, 20 °C)
Ecology - soil	Low potential for adsorption in soil.

xylene, mixture of isomers (1330-20-7)

Surface tension	28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)

xylene, mixture of isomers (1330-20-7)

Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.
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naphtha, heavy aromatic (64742-94-5)

Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1
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2-Ethylhexyl nitrate (27247-96-7)

Partition coefficient n-octanol/water (Log Pow)	4.12
-------------------------------------------------	------

2-Ethylhexanol (104-76-7)

Partition coefficient n-octanol/water (Log Pow)	2.73
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12.5. Other adverse effects

Ozone:	Not classified
Other adverse effects:	No additional information available




SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Disposal methods

Waste treatment methods:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information:	Flammable vapours may accumulate in the container.

SECTION 14: TRANSPORT INFORMATION

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
Not regulated for transport		
14.2. Proper Shipping Name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
		
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

14.6. Special precautions for user

SANS	No data available
IMDG	No data available
IATA	No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

SECTION 16: OTHER INFORMATION



H226	Flammable liquid and vapour.
H227	Combustible liquid
H228	Flammable solid.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H313	May be harmful in contact with skin
H315	Causes skin irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

DISCLAIMER

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Formulated for specific applications to ensure optimum performance.



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