



979 Injector Direct Clean Petrol MF97900300Y

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Product code: 1102343

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- H336 May cause drowsiness or dizziness.
 H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
 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 vapour.
 P280 Wear eye/face protection.
 P262 Do not get in eyes, on skin, or on clothing.
 P302+P352 IF ON SKIN: Wash with plenty of Water and soap..
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P314 Get medical advice/attention if you feel unwell.
 P273 Avoid release to the environment.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | Quantity |
|-------------|---|------------------|
| | EC No | Index No |
| | | REACH No |
| | Classification according to Regulation (EC) No. 1272/2008 [CLP] | |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | 25 - < 50 % |
| | 216-653-1 | 603-181-00-X |
| | Flam. Liq. 2, Skin Irrit. 2; H225 H315 | |
| 64742-48-9 | Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics | 25 - < 50 % |
| | 927-241-2 | 01-2119471843-32 |
| | Flam. Liq. 3, STOT SE 3, Asp. Tox. 1; H226 H336 H304 EUH066 | |
| | Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich | 5 - < 10 % |
| | Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 2; H302 H318 H411 | |
| 173140-85-7 | Oxirane, ethyl-, homopolymer, monoisotridecyl ether | 1 - < 3 % |
| | Skin Irrit. 2; H315 | |
| 67-56-1 | methanol | 0.1 - < 1 % |
| | 200-659-6 | 603-001-00-X |
| | Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H331 H311 H301 H370 ** | |

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms



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persist, seek medical advice.

After contact with skin

Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse.

In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling



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Advice on safe handling

Observe instructions for use.
Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
When using do not eat, drink, smoke, sniff.
Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Further information on handling

Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Observe legal regulations and provisions.

Advice on storage compatibility

Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

Further information on storage conditions

Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-------------------------|-----|-------------------|-----------|---------------|--------|
| 67-56-1 | Methanol | 200 | 266 | | TWA (8 h) | WEL |
| | | 250 | 333 | | STEL (15 min) | WEL |
| 1634-04-4 | Methyl-tert-butyl ether | 50 | 183,5 | | TWA (8 h) | WEL |
| | | 100 | 367 | | STEL (15 min) | WEL |

Additional advice on limit values

- a no restriction
- b End of exposure or shift
- c in long-term exposure: after several shifts
- d prior to next shift

TWA (EC): time-weighted average
U: Urea

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.
DIN EN 166



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Hand protection

Protect skin by using skin protective cream. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min
Thickness of the glove material 0,45 mm
DIN EN 374

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.
When exceeding the relevant workplace exposure limits, note the following:
Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..
Filtering device with filter or ventilator filtering device of type: A
Observe the wear time limits as specified by the manufacturer.
Observe legal regulations and provisions.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: yellow
Odour: amine-like

Test method

pH-Value (at 20 °C): No information available.

Changes in the physical state

Melting point: No information available.

Initial boiling point and boiling range: 55 °C

Sublimation point: No information available.

Softening point: No information available.

: No information available.

Flash point: -28 °C ISO 3679

Lower explosion limits: 0,6 vol. %

Upper explosion limits: 8,4 vol. %

Ignition temperature: No information available.

Vapour pressure: No information available.

Density (at 20 °C): 0,7632 g/cm³ DIN 51757

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water

Partition coefficient: No information available.

Viscosity / dynamic: No information available. DIN 53019-1

Viscosity / kinematic: No information available. DIN EN ISO 3104
(at 40 °C)



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| | |
|--------------------------|---------------------------|
| Flow time: | No information available. |
| Vapour density: | No information available. |
| Evaporation rate: | No information available. |
| Solvent separation test: | No information available. |
| Solvent content: | No information available. |

9.2. Other information

| | |
|----------------|---------------------------|
| Solid content: | No information available. |
|----------------|---------------------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.



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| CAS No | Chemical name | | | |
|------------|--|-------------------|-----------|--------|
| | Exposure route | Dose | Species | Source |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | | | |
| | oral | LD50 3866 mg/kg | Rat | |
| | dermal | LD50 > 2000 mg/kg | Rat | |
| | inhalative (4 h) vapour | LC50 85 mg/l | Rat | |
| 64742-48-9 | Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics | | | |
| | oral | LD50 > 5000 mg/kg | Rat | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | |
| | inhalative (4 h) vapour | LC50 > 4951 mg/l | Rat | |
| | Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich | | | |
| | oral | LD50 > 5000 mg/kg | Rat | |
| | dermal | LD50 > 2000 mg/kg | Rabbit | |
| 67-56-1 | methanol | | | |
| | oral | LD50 5628 mg/kg | Ratte | |
| | dermal | LD50 17100 mg/kg | Kaninchen | |
| | inhalative vapour | LC50 79,43 mg/l | Maus | |
| | inhalative aerosol | ATE 0,5 mg/l | | |

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Caution if victim vomits: Risk of aspiration! Vapours may cause drowsiness and dizziness. After skin contact: irritant.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

No indications of human carcinogenicity exist.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics)

STOT-repeated exposure

Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Aspiration hazard

May be fatal if swallowed and enters airways. (Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics)

Specific effects in experiment on an animal

No information available.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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| CAS No | Chemical name | | | | |
|------------|--|-------------------|-----------|-------------------------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source |
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | | | | |
| | Acute fish toxicity | LC50 672 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | |
| | Acute algae toxicity | ErC50 > 800 mg/l | 72 h | Desmodesmus subspicatus | |
| | Acute crustacea toxicity | EC50 651 mg/l | 48 h | Daphnia magna | |
| 64742-48-9 | Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics | | | | |
| | Acute fish toxicity | LC50 >1000 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | |
| | Acute algae toxicity | ErC50 >1000 mg/l | 72 h | Pseudokirchneriella subcapitata | |
| | Acute crustacea toxicity | EC50 >1000 mg/l | 48 h | Daphnia magna | |
| | Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich | | | | |
| | Acute fish toxicity | LC50 >1 - 10 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | |
| | Acute crustacea toxicity | EC50 >1 mg/l | 48 h | Daphnia magna | |
| 67-56-1 | methanol | | | | |
| | Acute fish toxicity | LC50 11850 mg/l | 96 h | Lepomis macrochirus | |
| | Acute algae toxicity | ErC50 20300 mg/l | 96 h | Pseudokirchneriella subcapitata | |
| | Acute crustacea toxicity | EC50 10000 mg/l | 48 h | Daphnia magna | |

12.2. Persistence and degradability

There are no data available on the mixture itself. AOX (mg/l): 0

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|--|---------|
| 1634-04-4 | tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE | 0,94 |
| 67-56-1 | methanol | -0,74 |

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products



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070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of used product

070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUIDS, N.O.S. (tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE, Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3
Classification code: F1
Special Provisions: 274 601 640C
Limited quantity: 1 L
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Other applicable information (land transport)

Limited quantity: E2

Inland waterways transport (ADN)

14.1. UN number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUIDS, N.O.S. (tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE, Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3
Classification code: F1
Special Provisions: 274 601 640C
Limited quantity: 1 L

Other applicable information (inland waterways transport)

Limited quantity: E2

Marine transport (IMDG)

14.1. UN number: UN1993



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14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (tert-butyl methyl ether, Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Marine pollutant: Yes

Special Provisions: 274

Limited quantity: 1 L

EmS: F-E, S-E

Other applicable information (marine transport)

Limited quantity: E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN1993

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (tert-butyl methyl ether, Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))

14.3. Transport hazard class(es): 3

14.4. Packing group: II

Hazard label: 3

Special Provisions: A3

Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 353

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 364

IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

Limited quantity: E2

Passenger-LQ: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

Danger releasing substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)

14.6. Special precautions for user

Warning: Combustible liquids

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]:

Calculation method.

National regulatory information

Water contaminating class (D): 2 - water contaminating



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SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
STEL (EC) Short Term Exposure Limit
LC50: Lethal Concentration
EC50: half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Relevant H and EUH statements (number and full text)

| | |
|--------|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| H370 | Causes damage to organs. |
| H372 | Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled. |
| H411 | Toxic to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)