



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 2 of 11

- 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	
64742-82-1	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)	25 - < 50 %
	919-446-0 01-2119458049-33	
	Flam. Liq. 3, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H372 H304 H411 EUH066	
	Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich	5 - < 10 %
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 2; H315 H319 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.



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 3 of 11

After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms 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 objects and areas thoroughly observing environmental regulations.

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



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 4 of 11

7.1. Precautions for safe handling

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.



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 5 of 11

Eye/face protection

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

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:
Odour: ethereal

pH-Value (at 20 °C): not applicable

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: 9 °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): 0,775 g/cm³ DIN 51757

Water solubility: insoluble

Partition coefficient: No information available.

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

Test method



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 6 of 11

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



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 7 of 11

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	
64742-82-1	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)			
	oral	LD50 > 15000 mg/kg	Rat	OECD 401
	dermal	LD50 3400 mg/kg	Rabbit	OECD 402
	inhalative (4 h) vapour	LC50 13100 mg/l	Rat	OECD 403
	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-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))

STOT-repeated exposure

Causes damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))

Aspiration hazard

May be fatal if swallowed and enters airways. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %))

Specific effects in experiment on an animal

No information available.

Additional information on tests

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

SECTION 12: Ecological information



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 8 of 11

12.1. Toxicity

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

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	
64742-82-1	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)				
	Acute fish toxicity	LC50 10 - 30 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50 4,6 - 10 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 10 - 22 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.



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 9 of 11

Waste disposal number of waste from residues/unused products

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. (@000000001015, 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. (@000000001015, 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
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 %))



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 10 of 11

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

Restrictions on use (REACH, annex XVII):

Entry 28: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25 %)

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) 1272/2008 [CLP]:

Calculation method.

National regulatory information

Water contaminating class (D): 2 - water contaminating



979 Injector Direct Clean Petrol MF97900300A

Print date: 23.05.2017

Product code: 11AMF97900300A

Page 11 of 11

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,15.

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.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
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.)