





**974 Injector Direct Protection Petrol MF97400200W3**

Print date: 14.11.2017

Product code: 1100943

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P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapours.
P280	Wear eye/face protection.
P273	Avoid release to the environment.
P271	Use only outdoors or in a well-ventilated area.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P501	Dispose of contents/container according to the official regulations.

**2.3. Other hazards**

No information available.

**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]	
67-63-0	2-Propanol	50 - < 100 %
	200-661-7	603-117-00-0
		01-2119457558-25
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
1398506-12-1	Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich	5 - < 10 %
	805-631-2	
	Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 2; H302 H318 H411	
128-37-0	2,6-di-tert-butyl-p-cresol	1 - < 3 %
	204-881-4	
		01-2119565113-46
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
110-25-8	N-Oleoyl-Sarcosid	0.1 - < 1 %
	203-749-3	
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1; H332 H315 H318 H400	
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	0.1 - < 1 %
	202-414-9	
		01-2119777867-13
	Acute Tox. 4, Skin Corr. 1C, STOT RE 2, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 10); H302 H314 H373 H400 H410	

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 persist, seek medical advice.



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**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**

No information available.

**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**

**Suitable extinguishing media**

Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder.

**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, CO<sub>2</sub>, 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**



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**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)**

Additive

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol			
Worker DNEL, long-term		inhalation	systemic	0,46 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	14 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	0,06 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	2 mg/kg bw/day



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**PNEC values**

CAS No	Substance	Value
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	
Environmental compartment		
Freshwater		0 mg/l
Freshwater (intermittent releases)		0 mg/l
Marine water		0 mg/l
Freshwater sediment		0,376 mg/kg
Marine sediment		0,038 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,27 mg/l
Soil		0,075 mg/kg

**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

**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**

Observe legal regulations and provisions.



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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

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

**Test method**

pH-Value (at 20 °C): not determined DIN 19268

**Changes in the physical state**

Melting point: not determined  
 Initial boiling point and boiling range: 78 °C  
 Sublimation point: No information available.  
 Softening point: No information available.  
 : No information available.

Flash point: 13 °C ISO 3679

**Flammability**

Solid: not applicable  
 Gas: not applicable

Lower explosion limits: 2 vol. %  
 Upper explosion limits: 12 vol. %  
 Ignition temperature: No information available.

**Auto-ignition temperature**

Solid: not applicable  
 Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidising.

Vapour pressure: not determined

Density (at 20 °C): 0,799 g/cm<sup>3</sup> DIN 51757

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

**Solubility in other solvents**

not determined

Partition coefficient: not determined

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

Viscosity / kinematic: < 7 mm<sup>2</sup>/s DIN EN ISO 3104  
 (at 40 °C)

Flow time: No information available. DIN EN ISO 2431  
 (at 20 °C)

Vapour density: not determined

Evaporation rate: not determined

Solvent separation test: No information available.

Solvent content: No information available.



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**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Flammable, Ignition hazard.

**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. Take precautionary measures against static discharges.

**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, CO<sub>2</sub>, 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
67-63-0	2-Propanol			
	oral	LD50 5280 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50 47,5 mg/l	Rat	
1398506-12-1	Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich			
	oral	LD50 > 5000 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
128-37-0	2,6-di-tert-butyl-p-cresol			
	oral	LD50 2930 mg/kg	Rat	
	dermal	LD50 >2000 mg/kg	Rat	
110-25-8	N-Oleoyl-Sarcosid			
	oral	LD50 9200 mg/kg	Rat	
	inhalative vapour	ATE 11 mg/l		
	inhalative (4 h) aerosol	LC50 1,37 mg/l	Rat	
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol			
	oral	LD50 ca. 1085 mg/kg	Rat	Study report (1989)
	dermal	LD50 >2000 mg/kg	Rabbit	

**Irritation and corrosivity**

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**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. (2-Propanol)

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**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
67-63-0	2-Propanol				
	Acute fish toxicity	LC50 9640 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	
1398506-12-1	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	
128-37-0	2,6-di-tert-butyl-p-cresol				
	Acute fish toxicity	LC50 0,42 mg/l	96 h	Brachydanio rerio (zebra-fish)	
	Acute algae toxicity	ErC50 0,42 mg/l	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 0,57 mg/l	48 h	Daphnia magna	
110-25-8	N-Oleoyl-Sarcosid				
	Acute fish toxicity	LC50 3,2-4,6 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50 5,1 mg/l	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 0,53 mg/l	48 h	Daphnia magna	
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol				
	Acute fish toxicity	LC50 0,3 mg/l	96 h	Brachydanio rerio (zebra-fish)	
	Acute algae toxicity	ErC50 0,03 mg/l	72 h	Desmodesmus subspicatus	Study report (2010)
	Acute crustacea toxicity	EC50 0,163 mg/l	48 h	Daphnia magna	Study report (2010)

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-63-0	2-Propanol	0,05
110-25-8	N-Oleoyl-Sarcosid	6,83
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	8,4

**BCF**

CAS No	Chemical name	BCF	Species	Source
95-38-5	2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	371,8		EPIWIN calculation (

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.



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**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**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**

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

**Waste disposal number of used product**

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; 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**

Water (with cleaning agent). Completely emptied packages can be recycled.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 1219
<b>14.2. UN proper shipping name:</b>	ISOPROPANOL (ISOPROPYL ALCOHOL) (solution)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Special Provisions:	601
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN 1219
<b>14.2. UN proper shipping name:</b>	ISOPROPANOL (ISOPROPYL ALCOHOL) (solution)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Classification code:	F1
Special Provisions:	601
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**



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<b>14.1. UN number:</b>	UN 1219
<b>14.2. UN proper shipping name:</b>	ISOPROPANOL (ISOPROPYL ALCOHOL) (solution) (Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Marine pollutant:	yes
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number:</b>	UN 1219
<b>14.2. UN proper shipping name:</b>	ISOPROPANOL (ISOPROPYL ALCOHOL) (solution)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II
Hazard label:	3
Special Provisions:	A180
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:	yes
Danger releasing substance:	Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich

**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):	EU: 91,5% CH: 0,139 86,5%

**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**

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	1 - slightly water contaminating



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**Additional information**

94/69/EC (21st ATP). The benzene content of the product is less than 0.1%. It applies the annotation P.  
Classification and labeling as carcinogenic is not necessary.

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 2,11,14.

**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.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

**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.)*