



**974 Injektor Direkt-Schutz Benzin MF97400200DLI**

Print date: 17.10.2017

Product code: 1300216

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

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

**Use of the substance/mixture**

Additive

**1.3. Details of the supplier of the safety data sheet**

Company name: TUNAP Deutschland Vertriebs GmbH & Co. Betriebs KG  
Street: Bürgermeister-Seidl-Str. 2  
Place: D-82515 Wolfratshausen  
Telephone: +49 (0) 8171/1600 - 0      Telefax: +49 (0) 8171/1600 - 40  
e-mail: sdb@tunap.com  
Internet: www.tunap.com

**1.4. Emergency telephone number:**

+49 (0) 30 30 686 790 (Giftnotruf Berlin)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Highly flammable liquid and vapour.

Causes serious eye damage.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

2-Propanol

Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C 11-14-isoalkyl ethers, C13-rich

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H225 Highly flammable liquid and vapour.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P102 Keep out of reach of children.  
P101 If medical advice is needed, have product container or label at hand.



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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.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
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		01-2119488991-20	
	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, 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**

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).



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**After contact with skin**

Wash with plenty of water.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**After ingestion**

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.

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

Dizziness, Headache, Irritation to eyes, Nausea

**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**

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

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Flammable. Vapours can form explosive mixtures with air.

**5.3. Advice for firefighters**

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**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

**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). Treat the recovered material as prescribed in the section on waste disposal.

**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**

**Advice on safe handling**

Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Vapours can form explosive mixtures with air.



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**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. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Advice on storage compatibility**

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

**Further information on storage conditions**

No information available.

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

No information available. 9

**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

**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**

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.



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**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. In case of inadequate ventilation wear respiratory protection. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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 according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

**Environmental exposure controls**

Observe legal regulations and provisions.

**SECTION 9: Physical and chemical properties**

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

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

		<b>Test method</b>
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>
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



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Viscosity / kinematic: (at 40 °C)	< 7 mm <sup>2</sup> /s	DIN EN ISO 3104
Flow time: (at 20 °C)	No information available.	DIN EN ISO 2431
Vapour density:	not determined	
Evaporation rate:	not determined	
Solvent separation test:	No information available.	
Solvent content:	No information available.	

**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 storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

**10.5. Incompatible materials**

No information available.

**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 1265 mg/kg	Rat	
	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**

Harmful 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 0,2989 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 0,136 mg/l	48 h	Daphnia magna	

**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

**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.

**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**





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**Advice on disposal**

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

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:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Special Provisions: 601  
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:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Special Provisions: 601  
Limited quantity: 1 L

**Other applicable information (inland waterways transport)**

Limited quantity: E2

**Marine transport (IMDG)**

**14.1. UN number:** UN 1219



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**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Marine pollutant: no  
Special Provisions: -  
Limited quantity: 1 L  
EmS: F-E, S-D

**Other applicable information (marine transport)**

Limited quantity: E2

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

**14.1. UN number:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Special Provisions: A180  
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: no

**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/CH: 90,998

**Additional information**

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

**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

**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.



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**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**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.)*