



according to Regulation (EC) No 1907/2006

**373 Elektronik-Öl Spray 07373020A**

Print date: 22.06.2016

Product code: 1100443

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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**

lubricant

**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**

Indications of danger: F+ - Extremely flammable, Xi - Irritant, N - Dangerous for the environment

R phrases:

Extremely flammable.

Irritating to skin.

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

Vapours may cause drowsiness and dizziness.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:

Aerosol: Aerosol 1

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1A

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

Causes skin irritation.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Hazard components for labelling**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, &lt; 5% n-hexane

Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics

Dihydro-3-(tetrapropenyl)furan-2,5-dione

Signal word: Danger

Pictograms: GHS02-GHS07-GHS09



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**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
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.
P211	Do not spray on an open flame or other ignition source.
P260	Do not breathe Aerosol.
P280	Wear eye/face protection..
P271	Use only outdoors or in a well-ventilated area.
P302+P352	IF ON SKIN: Wash with plenty of Water and soap..
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P251	Do not pierce or burn, even after use.

**2.3. Other hazards**

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**



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**Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-857-2	isobutane	25 - < 50 %
75-28-5	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119485395-27		
926-605-8	Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane	20 - < 25 %
	F - Highly flammable, Xn - Harmful, N - Dangerous for the environment R11-51-53-65-66-67	
	Flam. Liq. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H336 H304 H411 EUH066	
01-2119486291-36		
927-510-4	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics	20 - < 25 %
64742-49-0	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119475515-33		
200-827-9	propane	3 - < 5 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119486944-21		
203-448-7	butane	1 - < 3 %
106-97-8	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119474691-32		
247-781-6	Dihydro-3-(tetrapropenyl)furan-2,5-dione	0.1 - < 1 %
26544-38-7	Xi - Irritant R36-43-53	
	Eye Irrit. 2, Skin Sens. 1A, Aquatic Chronic 4; H319 H317 H413	

Full text of R, H and EUH phrases: see section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****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).

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
Caution if victim vomits: Risk of aspiration!



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**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.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder.**Unsuitable extinguishing media**

Full water jet

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

Combustible. Vapours may form explosive mixtures with air.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

**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. Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment.

**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**

Do not spray on naked flames or any incandescent material. Keep away from sources of ignition. - No smoking. Vapours may form explosive mixtures with air.

**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 sources of ignition. - No smoking.

**Advice on storage compatibility**

Do not store together with: Material, rich in oxygen, oxidizing.



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**Further information on storage conditions**

Protect from frost. Protect against direct sunlight.

**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 <sup>3</sup>	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		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

STEL (EC) : Short Term Exposure Limit

TWA (EC): time-weighted average

U: Urea

B: Blood

**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: 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.

**Respiratory protection**

Use only in well-ventilated areas.

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: AX



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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	colourless
Odour:	solvent like

**Test method**

pH-Value (at 20 °C): not applicable

**Changes in the physical state**

Melting point: No information available.

Initial boiling point and boiling range: -40 °C

Sublimation point: No information available.

Softening point: No information available.

Flash point: -80 °C

Lower explosion limits: 0,6 vol. %

Upper explosion limits: 9,4 vol. %

Ignition temperature: No information available.

Vapour pressure: No information available.

Vapour pressure: No information available.

Density (at 20 °C): 0,745 g/cm<sup>3</sup> DIN 51757

Bulk density: No information available.

Water solubility: insoluble

Partition coefficient: No information available.

Viscosity / dynamic: No information available.

Viscosity / kinematic: No information available.

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.

Density Data apply to the technically active substance.  
pressure - bar (20°C)**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**

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

**10.4. Conditions to avoid**

Keep away from heat. Ignition hazard.



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**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No information available.

**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.

**Acute toxicity**

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
64742-49-0	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics				
	oral	LD50	5500 mg/kg	Rat	
	dermal	LD50	2770 mg/kg	Rat	
	inhalative (4 h) vapour	LC50	23,3 mg/l	Rat	
106-97-8	butane				
	inhalative (4 h) gas	LC50	658 ppm	Rat	GESTIS
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione				
	oral	LD50	2900 mg/kg	Rat	
	dermal	LD50	6250-7500 mg/kg	Rat	
	inhalative (4 h) vapour	LC50	1220 mg/l	Rat	
	inhalative (4 h) aerosol	LC50	5,3 mg/l	Rat	

**Irritation and corrosivity**

Causes skin irritation.

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

Vapours may cause drowsiness and dizziness. After skin contact: Irritant.

**Sensitising effects**

May cause an allergic skin reaction. (Dihydro-3-(tetrapropenyl)furan-2,5-dione)

**STOT-single exposure**

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, isoalkanes, cyclics, &lt;5% n-hexane), (Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics)

**Severe effects after repeated or prolonged exposure**

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 indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

**Aspiration hazard**

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



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**Specific effects in experiment on an animal**

No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
64742-49-0	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics					
	Acute fish toxicity	LC50	>1 - 10 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	>10 - 100	72 h	Algae toxicity	
	Acute crustacea toxicity	EC50	>1 - 10 mg/l	48 h	Daphnia magna	
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione					
	Acute fish toxicity	LC50	> 100 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	110 mg/l	96 h	Selenastrum capricornutum	

**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
75-28-5	isobutane	2,8
74-98-6	propane	2,36
106-97-8	butane	2,89
26544-38-7	Dihydro-3-(tetrapropenyl)furan-2,5-dione	>=4,39

**12.4. Mobility in soil**

No information available.

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

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**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**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances  
Classified as hazardous waste.

**Waste disposal number of used product**





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160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

**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 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1  
 Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Transport category: 2  
 Tunnel restriction code: D

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1  
 Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L

**Marine transport (IMDG)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1  
 Marine pollutant: Yes  
 Special Provisions: 63, 190, 277, 327, 344, 959  
 Limited quantity: 1000 mL  
 EmS: F-D, S-U

**Air transport (ICAO)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, flammable  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -



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Hazard label:	2.1	
Special Provisions:	A145 A167 A802	
Limited quantity Passenger:	30 kg G	
IATA-packing instructions - Passenger:		203
IATA-max. quantity - Passenger:		75 kg
IATA-packing instructions - Cargo:		203
IATA-max. quantity - Cargo:		150 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:	yes
Danger releasing substance:	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane

**14.6. Special precautions for user**

Warning: Flammable gases.

**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**

1999/13/EC (VOC): No information available.

**Additional information**

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

**National regulatory information**

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.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,2,4,6,8,14.

**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



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**Relevant R phrases (number and full text)**

11	Highly flammable.
12	Extremely flammable.
36	Irritating to eyes.
38	Irritating to skin.
43	May cause sensitisation by skin contact.
51	Toxic to aquatic organisms.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

**Relevant H and EUH statements (number and full text)**

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
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.

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