



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 1 of 10

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

**1.1. Product identifier**

921 Haftsynthese Strong MP92100400AB

**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**

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

Hazard categories:

Aerosol: Aerosol 1

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

**2.2. Label elements**

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

**Signal word:** Danger

**Pictograms:**



**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

**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.
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.



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 2 of 10

**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]			
75-28-5	isobutane			25 - < 50 %
	200-857-2	601-004-00-0	01-2119485395-27	
	Flam. Gas 1, Liquefied gas; H220 H280			
68037-01-4	Dec-1-ene, homopolymer, hydrogenated			10 - < 20 %
	500-183-1		01-2119486452-34	
	Asp. Tox. 1; H304			
74-98-6	propane			5 - < 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
	Alkyl-naphthalinsulfon acid, calcium salt			1 - < 3 %
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
106-97-8	butane			1 - < 3 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			

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.

**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.



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 3 of 10

**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**

Full 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. 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**

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

**Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking. Heating causes rise in pressure with risk of bursting.

**Further information on handling**

Avoid contact with skin and eyes.

**7.2. Conditions for safe storage, including any incompatibilities**



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 4 of 10

**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**

Protect from frost. Protect against direct sunlight. 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 <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**

**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: AX



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 5 of 10

Observe the wear time limits as specified by the manufacturer.

Observe legal regulations and provisions.

**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: Aerosol  
 Colour: light brown  
 Odour: mild

pH-Value (at 20 °C):

**Test method**  
 not determined DIN 19268

**Changes in the physical state**

Melting point: not determined  
 Initial boiling point and boiling range: -42 °C  
 Flash point: -80 °C

**Flammability**

Solid: not applicable  
 Gas: not applicable

Lower explosion limits: 1,5  
 Upper explosion limits: 9,4

**Auto-ignition temperature**

Solid: not applicable  
 Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidizing.

Vapour pressure: not determined  
 Vapour pressure: No information available.

Density (at 20 °C): 0,871 g/cm<sup>3</sup> DIN 51757

Bulk density: not applicable

Water solubility: insoluble

**Solubility in other solvents**

not determined

Partition coefficient: not determined

Viscosity / dynamic: No information available.

Viscosity / kinematic: > 20,5 mm<sup>2</sup>/s

Flow time: not applicable

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

Data apply to technical substance: Density, Colour, Odour, Viscosity, pH.



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 6 of 10

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

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

There are no data available on the mixture itself.

**Acute toxicity**

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

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
68037-01-4	Dec-1-ene, homopolymer, hydrogenated			
	oral	LD50 > 5000 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
	inhalative (4 h) aerosol	LC50 > 5,2 mg/l	Rat	
106-97-8	butane			
	inhalative (4 h) gas	LC50 658 ppm	Rat	GESTIS

**Irritation and corrosivity**

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 indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

**STOT-single exposure**

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



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 7 of 10

**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.

**SECTION 12: Ecological information**

**12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name		Dose	[h]   [d]	Species	Source
68037-01-4	Dec-1-ene, homopolymer, hydrogenated					
	Acute fish toxicity	LC50	> 1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>1000 mg/l	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	> 1000 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
75-28-5	isobutane	2,8
74-98-6	propane	2,36
106-97-8	butane	2,89

**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**

Avoid release to the environment.

**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**



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 8 of 10

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

**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  
Excepted quantity: E0  
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  
Excepted quantity: E0

**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: no  
Special Provisions: 63, 190, 277, 327, 344, 959  
Limited quantity: 1000 mL  
Excepted quantity: E0  
EmS: F-D, S-U

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

**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:** -





**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 9 of 10

Hazard label:	2.1
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
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: no

**14.6. Special precautions for user**

No information available.

**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) 1272/2008 [CLP]:

Calculation method.

Aerosol directive (75/324/EEC)

**National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

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

**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



**921 Haftsynthese Strong MP92100400AB**

Print date: 10.05.2017

Product code: 1102111

Page 10 of 10

EC50: half maximal Effective Concentration  
ErC50: means EC50 in terms of reduction of growth rate

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
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.
H319	Causes serious eye irritation.

**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.)*