



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

112 Brake spray MP11200400AB

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

Schmierstoff

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**

R phrases:
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 3
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.
Harmful to aquatic life with long lasting effects.

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

Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics
Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts
(R)-p-mentha-1,8-diene, d-limonene

Signal word: Danger
Pictograms: GHS02-GHS07





according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 2 of 12

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.
H412	Harmful 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.
P273	Avoid release to the environment.
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.
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

No information available.

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



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 3 of 12

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	5 - < 10 %
	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		
200-827-9	propane	5 - < 10 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119486944-21		
927-510-4	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics	5 - < 10 %
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		
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		
227-813-5	(R)-p-mentha-1,8-diene, d-limonene	0.1 - < 1 %
5989-27-5	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R10-38-43-50-53-65	
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H304 H400 H410	
01-2119529223-47		
271-529-4	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	0.1 - < 1 %
68584-23-6	Xi - Irritant R36	
	Eye Irrit. 2; H319	
939-603-7	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts	0.1 - < 1 %
	Xi - Irritant R38-52-53	
	Skin Sens. 1; H317	
01-2119978241-36		

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.

**112 Brake spray MP11200400AB**

Print date: 22.06.2016

Product code: 1101054

Page 4 of 12

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse.

After contact with eyes

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

After ingestion

Rinse mouth immediately and drink plenty of water.

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.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Non-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. 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**

Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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 pierce or burn, even after use.

Advice on protection against fire and explosion

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed.



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 5 of 12

Advice on storage compatibility

No special measures are necessary.

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 ³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
14807-96-6	Talc respirable dust	-	1		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL
		-	-		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**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Eye/face protection

Wear eye/face protection.

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.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 6 of 12

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

Physical state: Aerosol
 Colour: grey
 Odour: characteristic

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: -40 °C
 Sublimation point: No information available.
 Softening point: No information available.
 Flash point: -80 °C

Flammability

Solid: not applicable
 Gas: not applicable

Lower explosion limits: 1,1 vol. %

Upper explosion limits: 9,4 vol. %

Ignition temperature: No information available.

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): 1,0856 g/cm³ DIN 51757

Bulk density: No information available.

Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / dynamic: No information available.

Viscosity / kinematic: No information available.

Flow time: No information available.

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



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 7 of 12

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

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 storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

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.



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 8 of 12

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
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50 mg/kg	> 2000	Ratte	
	dermal	LD50 mg/kg	> 2000	Kaninchen	IUCLID
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts				
	oral	LD50 mg/kg	>5000	Rat	
	dermal	LD50 mg/kg	>5000	Rat	
	inhalative (4 h) aerosol	LC50	>5 mg/l	Rat	
	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts				
	oral	LD50 mg/kg	> 5000	Rat	
	dermal	LD50 mg/kg	> 5000	Rat	

Irritation and corrosivity

Causes skin irritation.

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

Sensitising effects

May cause an allergic skin reaction. ((R)-p-mentha-1,8-diene, d-limonene), (Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts)

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, isoalkanes, cyclics, <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.

Specific effects in experiment on an animal

No information available.

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



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 9 of 12

Harmful 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	
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene					
	Acute fish toxicity	LC50	0,7 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	8 mg/l	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	0,42 mg/l	48 h	Daphnia magna	
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts					
	Acute fish toxicity	LC50	>10000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>1000 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	>1000 mg/l	48 h	Daphnia magna	
	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts					
	Acute fish toxicity	LC50	> 100 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	> 100 mg/l	48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity		(> 10000 mg/l)			OECD-209

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
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,23

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**


112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 10 of 12

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

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

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: no



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 11 of 12

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: -
 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: 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**

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

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC

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.

SECTION 16: Other information**Changes**

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

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



according to Regulation (EC) No 1907/2006

112 Brake spray MP11200400AB

Print date: 22.06.2016

Product code: 1101054

Page 12 of 12

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant R phrases (number and full text)

10	Flammable.
11	Highly flammable.
12	Extremely flammable.
36	Irritating to eyes.
38	Irritating to skin.
43	May cause sensitisation by skin contact.
50	Very toxic to aquatic organisms.
51	Toxic to aquatic organisms.
52	Harmful to aquatic organisms.
52/53	Harmful 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.
H226	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.
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.
H412	Harmful 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.)