



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 2 of 13

Pictograms:



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. |
| P262 | Do not get in eyes, on skin, or on clothing. |
| P271 | Use only outdoors or in a well-ventilated area. |
| 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

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 3 of 13

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			
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane			5 - < 10 %
	921-024-6		01-2119475514-35	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
74-98-6	propane			5 - < 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
64742-49-0	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics			5 - < 10 %
	927-510-4		01-2119475515-33	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
106-97-8	butane			1 - < 3 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			0.1 - < 1 %
	227-813-5		01-2119529223-47	
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H304 H400 H410			
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts			0.1 - < 1 %
	271-529-4			
	Eye Irrit. 2; H319			
	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts			0.1 - < 1 %
	939-603-7		01-2119978241-36	
	Skin Sens. 1B; H317			

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



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 4 of 13

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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

High power 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.

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.



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 5 of 13

Advice on storage compatibility

No special measures are necessary.

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 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

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

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 protection/face protection.

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.



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 6 of 13

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
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: grey
Odour: characteristic

pH-Value (at 20 °C):

not determined **Test method** DIN 19268

Changes in the physical state

Melting point: not determined
Initial boiling point and boiling range: -40 °C
Flash point: -80 °C

Flammability

Solid: not applicable
Gas: not applicable

Lower explosion limits: 1,1 vol. %
Upper explosion limits: 9,4 vol. %

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

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

Density (at 20 °C): 1,0856 g/cm³ DIN 51757
Bulk density: not applicable

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.

Viscosity / kinematic: No information available.

Flow time: not applicable



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 7 of 13

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

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

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

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

10.4. Conditions to avoid

none

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, CO₂, 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.



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 8 of 13

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane			
	oral	LD50 > 5000 mg/kg	Rat	
	dermal	LD50 > 2000 mg/kg	Rabbit	
	inhalative (4 h) vapour	LC50 > 23,3 mg/l	Rat	
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 > 2000 mg/kg	Rat	Study report (2010)
	dermal	LD50 > 2000 mg/kg	Kaninchen	IUCLID
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts			
	oral	LD50 >5000 mg/kg	Rat	
	dermal	LD50 >5000 mg/kg	Rat	
	inhalative (4 h) aerosol	LC50 >5 mg/l	Rat	
	Benzenesulfonic acids, di-C10-14-alkyl derivatives, calcium salts			
	oral	LD50 > 5000 mg/kg	Rat	
	dermal	LD50 > 5000 mg/kg	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)

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

May cause drowsiness or dizziness.

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

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



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 9 of 13

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane				
	Acute fish toxicity	LC50 > 1-10 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 > 10 - 100 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 > 1-10 mg/l	48 h	Daphnia magna	
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 >10 - 100 mg/l	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 0,72 mg/l	96 h	Pimephales promelas	Study report (1990)
	Acute algae toxicity	ErC50 0,32 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2013)
	Acute crustacea toxicity	EC50 0,307 mg/l	48 h	Daphnia magna	Study report (2013)
	Fish toxicity	NOEC 0,37 mg/l	8 d	Pimephales promelas	Study report (2015)
	Crustacea toxicity	NOEC 0,08 mg/l	21 d	Daphnia magna	Study report (2016)
	Acute bacteria toxicity	(209 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (2010)
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.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane			
	OECD Guideline 301 F	98%	28	
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

The product has not been tested.



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 10 of 13

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-28-5	isobutane	2,8
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane	3,4 - 5,2
74-98-6	propane	2,36
106-97-8	butane	2,89
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,38

BCF

CAS No	Chemical name	BCF	Species	Source
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	908,5		Other company data (

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

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; 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; 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



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 11 of 13

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: -
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



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 12 of 13

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

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 'juvenil work protection guideline' (94/33/EC).

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,8,9,10,11.

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)

- 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.

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.



112 Brake spray MP11200400AB

Print date: 09.10.2017

Product code: 1101054

Page 13 of 13

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