

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

- 1.1 Product identifier
 - Trade name: MS Marking Spray

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
- Sector of Use
 - SU1 Agriculture, forestry, fishery*
 - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)*
- Product category *PC9a Coatings and paints, thinners, paint removers*
- Application of the substance / the mixture *Paint*

- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
 - Schippers Europe B.V.*
 - Rond Deel 12*
 - 5531 AH Bladel*
 - Nederland*
 - Tel. +31 497 382 017*
 - Fax: +31 497 382 096*
 - E-mail: contact.nl@schippers.eu*
 - www.schippers.nl*
- Further information obtainable from: *See Supplier / manufacturer*
- 1.4 Emergency telephone number:
 - T. 0031-(09) 497 339775*
 - F. 0031-(09) 497 339777*

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02

- Signal word *Danger*
- Hazard statements
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- Precautionary statements
 - P101 If medical advice is needed, have product container or label at hand.*
 - P102 Keep out of reach of children.*
 - 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.*

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- P251 Do not pierce or burn, even after use.
 P260 Do not breathe spray.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P501 Dispose of contents / container in accordance with regional regulations.

· Additional information:

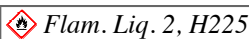
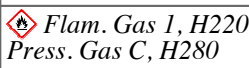
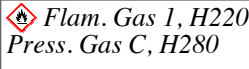
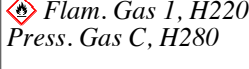
Buildup of explosive mixtures possible without sufficient ventilation.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43	ethanol		75-≤100%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21	propane		5-<10%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32	butane		5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 Reg.nr.: 01-2119485395-27	isobutane		2.5-<5%

· Additional information:

The content of Benzene (EINECS-Nr. 200-753-7) in the ingredients is less than 0,1% (Note P Annex IA 1272/2008 EU), so the classification as carcinogen need not to apply.

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
 - After inhalation: Supply fresh air; consult doctor in case of complaints.
 - After skin contact: Generally the product does not irritate the skin.
 - After eye contact: Rinse opened eye for several minutes under running water.
 - After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed: No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

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- 5.2 Special hazards arising from the substance or mixture
During heating or in case of fire poisonous gases are produced.
- 5.3 Advice for firefighters -
- Protective equipment: *Mouth respiratory protective device.*

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: *Do not allow to enter sewers/ surface or ground water.*
- 6.3 Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
No special measures required.
- Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:
Observe official regulations on storing packagings with pressurised containers.
- Information about storage in one common storage facility: *Not required.*
- Further information about storage conditions: *Keep container tightly sealed.*
- Storage class: *2 B*
- 7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: *No further data; see item 7.*
- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

106-97-8 butane

WEL Short-term value: 1810 mg/m³, 750 ppmLong-term value: 1450 mg/m³, 600 ppm

Carc (if more than 0.1% of buta-1.3-diene)

- Additional information: *The lists valid during the making were used as basis.*
- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
Wash hands before breaks and at the end of work.

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Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

In case of contact with spray dust protective gloves made of butyl should be used (min. 0.4 mm thick), e.g. KCL Camatril, article no. 898 or similar products

Solvent resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Butyl rubber gloves with a thickness of 0.4 mm are resistant to:

Acetone: 480 min

Butyl acetate: 60 min

Ethyl acetate: 170 min

Xylene: 42 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** *Not required.*

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: *Aerosol*

Colour: *According to product specification*

· Odour: *Characteristic*

· Odour threshold: *Not determined.*

· pH-value: *Not determined.*

· Change in condition

Melting point/freezing point: *Undetermined.*

Initial boiling point and boiling range: *Not applicable, as aerosol.*

· Flash point: *Not applicable, as aerosol.*

· Flammability (solid, gas): *Not applicable.*

· Ignition temperature: *365°C (689 °F)*

· Decomposition temperature: *Not determined.*

· Auto-ignition temperature: *Product is not selfigniting.*

· Explosive properties: *Not determined.*

· Explosion limits:

Lower: *3.5Vol %*

Upper: *10.9Vol %*

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· Vapour pressure at 20°C (68 °F):	8hPa (6 mm Hg)
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	96.3%
VOC (EC)	---
	991.3 g/l
· VOC-EU%	99.13 %
· Solids content:	0.7%
· 9.2 Other information	No further relevant information available.

* SECTION 10: Stability and reactivity

- 10.1 Reactivity *No further relevant information available.*
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided *No decomposition if used according to specifications.*
- 10.3 Possibility of hazardous reactions *No dangerous reactions known.*
- 10.4 Conditions to avoid *No further relevant information available.*
- 10.5 Incompatible materials: *No further relevant information available.*
- 10.6 Hazardous decomposition products: *No dangerous decomposition products known.*

* SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity *Based on available data, the classification criteria are not met.*
- Primary irritant effect:
- Skin corrosion/irritation *Based on available data, the classification criteria are not met.*
- Serious eye damage/irritation *Based on available data, the classification criteria are not met.*
- Respiratory or skin sensitisation *Based on available data, the classification criteria are not met.*
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity *Based on available data, the classification criteria are not met.*
- Carcinogenicity *Based on available data, the classification criteria are not met.*
- Reproductive toxicity *Based on available data, the classification criteria are not met.*
- STOT-single exposure *Based on available data, the classification criteria are not met.*
- 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.*

* SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: *No further relevant information available.*
- 12.2 Persistence and degradability *No further relevant information available.*

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- 12.3 Bioaccumulative potential *No further relevant information available.*
- 12.4 Mobility in soil *No further relevant information available.*
- Additional ecological information:
- General notes:
*Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.*
- 12.5 Results of PBT and vPvB assessment
- PBT: *Not applicable.*
- vPvB: *Not applicable.*
- 12.6 Other adverse effects *No further relevant information available.*

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
15 01 04	metallic packaging

- Uncleaned packaging:
- Recommendation: *Non contaminated packagings may be recycled.*

SECTION 14: Transport information

- | | |
|-------------------|---------------|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | <i>UN1950</i> |

- | | |
|--------------------------------|----------------------------|
| · 14.2 UN proper shipping name | |
| · ADR | <i>1950 AEROSOLS</i> |
| · IMDG | <i>AEROSOLS</i> |
| · IATA | <i>AEROSOLS, flammable</i> |

- | | |
|-----------------------------------|--|
| · 14.3 Transport hazard class(es) | |
| · ADR | |



- | | |
|---------|--------------------|
| · Class | <i>2 5F Gases.</i> |
| · Label | <i>2.1</i> |

- | | |
|--------------|--|
| · IMDG, IATA | |
|--------------|--|



- | | |
|---------|------------|
| · Class | <i>2.1</i> |
| · Label | <i>2.1</i> |

- | | |
|----------------------|----------------------|
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | <i>not regulated</i> |

- | | |
|-------------------------------|------------------------|
| · 14.5 Environmental hazards: | <i>Not applicable.</i> |
|-------------------------------|------------------------|

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<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Code · Segregation Code 	<p><i>Warning: Gases.</i></p> <p>-</p> <p><i>F-D,S-U</i></p> <p><i>SW1 Protected from sources of heat.</i></p> <p><i>SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</i></p> <p><i>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</i></p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p><i>Not applicable.</i></p>
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code 	<p><i>IL</i></p> <p><i>Code: E0</i></p> <p><i>Not permitted as Excepted Quantity</i></p> <p><i>2</i></p> <p><i>D</i></p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p><i>IL</i></p> <p><i>Code: E0</i></p> <p><i>Not permitted as Excepted Quantity</i></p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p><i>UN 1950 AEROSOLS, 2.1</i></p>

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Qualifying quantity (tonnes) for the application of lower-tier requirements *150 t*
- Qualifying quantity (tonnes) for the application of upper-tier requirements *500 t*
- REGULATION (EC) No 1907/2006 ANNEX XVII *Conditions of restriction: 3*
- 15.2 Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

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SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H220 Extremely flammable gas.*
 - H225 Highly flammable liquid and vapour.*
 - H280 Contains gas under pressure; may explode if heated.*
- Abbreviations and acronyms:
 - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*
 - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*
 - ICAO: International Civil Aviation Organisation*
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised 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)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas C: Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
· * Data compared to the previous version altered.

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