

# Safety data sheet

according to 1907/2006/EC, Article 31, as amended by UK  
REACH Regulation SI 2019/758

Printing date 28.07.2023

Version number 2 (replaces version 1)

Revision: 28.07.2023

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

### 1.1 Product identifier

**Trade name:** Marker Spray

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Technical function** Hand-held pre-pressurised aerosol

**Application of the substance / the preparation:** Line marking / spot marking

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**

### 1.4 Emergency telephone number(s):

NHS Direct: 111

National Poisons Information Service (NPIS): 0121 507 4123 (healthcare professionals only). Ireland

- National Poisons Information Centre: 01 837 9964 or 01 809 2566 (healthcare professionals only).

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the GB CLP regulation.

#### Hazard pictograms:



GHS02 GHS07

**Signal word:** Danger

#### Hazard-determining components of labelling:

Rosin

#### Hazard statements:

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

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

#### 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.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

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P302+P352	IF ON SKIN: Wash with plenty of water.
P321	Specific treatment (see on this label).
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 Other hazards

### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

**Description:** Mixture consisting of the following components.

### Hazardous components:

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8	dimethyl ether Flam. Gas 1A, H220; Press. Gas (Comp.), H280	≥10-≤50%
CAS: 8050-09-7 EINECS: 232-475-7 Index number: 650-015-00-7	Rosin Skin Sens. 1, H317	≥10-≤25%
CAS: 616-38-6 EINECS: 210-478-4 Index number: 607-013-00-6	dimethyl carbonate Flam. Liq. 2, H225	≥10-≤25%
CAS: 25551-13-7 EINECS: 247-099-9	trimethylbenzene Flam. Liq. 3, H226; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≥10-≤25%

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information:** Immediately remove any clothing soiled by the product.

#### After inhalation:

Butane asphyxiation will precede any toxicological effects of the active elements.

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in the recovery position.

#### After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

Repeated contact may cause skin dryness and cracking.

#### After eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Get medical attention.

NEVER PUT AEROSOLS NEAR EYES/MUCOUS MEMBRANES

**After swallowing:** Call for a doctor immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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## 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:

CO<sub>2</sub>

Dry powder

Sand

Earth

For larger fires, use foam, water fog or spray, avoiding contamination.

Use water only to cool undamaged broth.

### 5.2 Special hazards arising from the substance or mixture

Pressurized aerosols should not be exposed to temperatures above 50°C. Beyond this, containers may explode and the resulting flammable mixture will burn to produce CO<sub>2</sub>.

### 5.3 Advice for firefighters

#### Protective equipment:

Wear a positive pressure self-contained breathing apparatus

Wear fully protective suit.

**Additional information:** Avoid contamination of water courses when damaged stock is leaking.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Ensure adequate ventilation.

Use personal protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions** Do not allow product to reach sewage system or any water course.

### 6.3 Methods and material for containment and cleaning up

In small quantities, any liquid should be absorbed in a suitable medium, such as sand, and disposed of safely. The residue should be washed off with soapy water, although staining is to be expected.

Ensure adequate ventilation.

Dispose contaminated material as waste according to section 13.

### 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.

#### Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

### 7.2 Conditions for safe storage, including any incompatibilities

#### 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:** Avoid contamination with other products.

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## Further information about storage conditions:

Protect from heat and direct sunlight.

Protect from humidity and water.

Store in cool, dry conditions in well sealed receptacles.

Containers will not last indefinitely even when stored in a cool, dry place, they should be inspected periodically during long term storage.

Keep container tightly closed.

**7.3 Specific end use(s):** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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

##### 115-10-6 dimethyl ether

WEL	Short-term value: 958 mg/m <sup>3</sup> , 500 ppm Long-term value: 766 mg/m <sup>3</sup> , 400 ppm
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##### 8050-09-7 Rosin

WEL	Short-term value: 0.15 mg/m <sup>3</sup> Long-term value: 0.05 mg/m <sup>3</sup> Sen
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**Additional information:** The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Individual protection measures, such as personal protective equipment

##### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Ensure good ventilation/exhaustion at the workplace.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

##### Respiratory protection:

Use organic/inorganic vapor filters. Vapors may cause drowsiness or dizziness.

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

Use suitable respiratory protective device in case of insufficient ventilation.

##### Hand protection



Protective 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.

Select the glove material based on a consideration of the penetration times, rates of diffusion and the degradation.

##### Material of gloves:

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:

The exact break through time must be determined by the manufacturer of the protective gloves.

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## Eye/face protection



Safety glasses with side-shields (EN 166).

**Body protection:** Protective work clothing.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

Physical state	Aerosol.
Colour:	Transparent.
Odour:	
Odour threshold:	Not determined.
Melting point/freezing point:	<-20 °C
Boiling point or initial boiling point and boiling range	>60 °C
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	0 °C
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
pH	Not determined.
VOC (EC):	≤410 mg/L
Dynamic:	Not determined.
Solubility	
Water:	Insoluble.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure at 20 °C:	5,200 hPa (115-10-6 dimethyl ether)
Density and/or relative density	
Density:	Not determined.
Relative density at 20 °C	0.97 kg/m <sup>3</sup>
Bulk density:	1 kg/m <sup>3</sup>
Vapour density	Not determined.

### 9.2 Other information

Appearance:	
Form:	Aerosol.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
Solids content:	10-17 %
Softening point/range	
Oxidising properties	Not determined.
Evaporation rate	Not applicable.

#### Information with regard to physical hazard classes

Explosives	Not applicable.
Flammable gases	Not applicable.
Aerosols	Extremely flammable aerosol. Pressurised container: May burst if heated.
Oxidising gases	Not applicable.
Gases under pressure	Not applicable.
Flammable liquids	Not applicable.
Flammable solids	Not applicable.

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<b>Self-reactive substances and mixtures</b>	Not applicable.
<b>Pyrophoric liquids</b>	Not applicable.
<b>Pyrophoric solids</b>	Not applicable.
<b>Self-heating substances and mixtures</b>	Not applicable.
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	Not applicable.
<b>Oxidising liquids</b>	Not applicable.
<b>Oxidising solids</b>	Not applicable.
<b>Organic peroxides</b>	Not applicable.
<b>Corrosive to metals</b>	Not applicable.
<b>Desensitised explosives</b>	Not applicable.

### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

#### 10.2 Chemical stability

The container is inherently stable under the prescribed conditions for a reasonable period of time (at least 24-25 months).

#### Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

#### 10.3 Possibility of hazardous reactions

Container corrosion can occur over time and damaged containers should be disposed of before a hazard arises.

#### 10.4 Conditions to avoid

Keep away from sources of ignition.

Avoid high temperatures.

Avoid contact with acids

Protect against moisture.

Keep away from humidity and acids

**10.5 Incompatible materials** No further relevant information available.

**10.6 Hazardous decomposition products** No further relevant information available.

**Additional information:** Avoid sudden shocks, which can damage the integrity of the container.

### SECTION 11: Toxicological information

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

#### LD/LC50 values:

##### 115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/L (Rat)
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##### 616-38-6 dimethyl carbonate

Oral	LD50	13,000 mg/kg (Rat)
Dermal	LD50	>5,000 mg/kg (rabbit)

**Skin corrosion/irritation:** Causes skin irritation.

**Serious eye damage/irritation:** Causes serious eye irritation.

**Respiratory or skin sensitisation:** May cause an allergic skin reaction.

**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.

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### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

None of the ingredients are listed.

#### 11.2.2 Other information

Deliberate inhalation may cause severe pulmonary and breathing difficulty, dizziness, drowsiness (narcosis) and headaches. This will constitute abuse.

Skin and eye irritation may result from continued exposure to vapors when used in areas of poor ventilation, or when working in close proximity to the spray for prolonged periods, and suitable steps should to avoid such conditions.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

#### 115-10-6 dimethyl ether

LC50	13,000 mg/L (Fish)
NOEC/48h	>4,000 mg/L (Fish)

### 12.2 Persistence and degradability

The degradation will be relatively slow but eventually almost complete.

**12.3 Bioaccumulative potential** Accumulation is unlikely once physical failure begins.

**12.4 Mobility in soil** Mobility will be very slow.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

### 12.7 Other adverse effects

#### Additional environmental information:

Short and long term effects should not be considered significant. Very short term damage to aquatic and soil organisms may occur with a large spill (over 1000 containers), although this should disperse quickly (especially if absorbent material is used).

The product will evaporate quickly in the air. A colored liquid, easily absorbed, will evaporate and leave a solid. The solid will present no other significant hazard, with no hazard resulting from degradation.

#### General notes:

Water hazard class 1 (German Regulation) (Self-assessment): Slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Recommendation:

Disposal must be made in accordance with official regulations.

Do not puncture or incinerate/burn even after use.

Do not allow product to reach sewage system.

#### Uncleaned packaging:

#### Recommendation:

Disposal must be made in accordance with official regulations.

Packaging that may not be cleansed must be disposed of in the same manner as the product.

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**Trade name:** Marker Spray**SECTION 14: Transport information****14.1 UN number or ID number**

ADR, IMDG, IATA

UN1950

**14.2 UN proper shipping name**

ADR

1950 AEROSOLS

IMDG

AEROSOLS

IATA

AEROSOLS, flammable

**14.3 Transport hazard class(es)**

ADR



Class

2.1 Gases.

Label

2.1

IMDG, IATA



Class

2.1 Gases.

Label

2.1

**14.4 Packing group**

ADR, IMDG, IATA

Not applicable.

**14.5 Environmental hazards**

Not applicable.

**14.6 Special precautions for user**

Hazard identification number (Kemler code):

Warning: Gases.

EMS Number:

-

Stowage Code

F-D,S-U

SW1 Protected from sources of heat.  
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.

Segregation Code

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.

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

Transport/Additional information:

ADR

Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

Tunnel restriction code:

D



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## IMDG

Limited quantities (LQ)  
Excepted quantities (EQ)

1L  
Code: E0  
Not permitted as Excepted Quantity

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Directive 2012/18/EU

**Named dangerous substances - ANNEX I** None of the ingredients are listed.

**Seveso category P3a** FLAMMABLE AEROSOLS

**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

#### DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients are listed.

#### REGULATION (EU) 2019/1148

#### Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients are listed.

#### Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients are listed.

#### Regulation (EC) No 273/2004 on drug precursors

None of the ingredients are listed.

#### Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients are listed.

### 15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out.

## 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.  
H226 Flammable liquid and vapour.  
H280 Contains gas under pressure; may explode if heated.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.

**Date of previous version:** 26.07.2023

**Version number of previous version:** 1

### Abbreviations and acronyms:

WEL: Workplace Exposure Limits  
ADR: Accord relatif au transport international 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 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)

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LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1A: Flammable gases – Category 1A

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1