

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.08.2021

Version number 304 (replaces version 303)

Revision: 31.08.2021

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

- **1.1 Product identifier** 600082
- **Trade name:** Marker Spray E-COLL
- **Article number:** 4317784243605
- **UFI:** 27M0-8TRR-1A05-URY8
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**  
SU21 Consumer uses: Private households / general public / consumers  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Application of the substance / the mixture** Auxiliary
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
E/D/E - Einkaufsbuero Deutscher Eisenhaendler GmbH  
EDE Platz 1  
D-42389 Wuppertal  
Germany  
  
Tel. +49 202 6096-0  
e-mail: sdb@ede.de
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:** Giftinformationszentrum Mainz – Tel.: +49 (6131) 19240

**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.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

**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 GHS07

- **Signal word** Danger

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**· Hazard-determining components of labelling:**propan-2-ol  
butanone**· Hazard statements**H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.**· 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.  
P251 Do not pierce or burn, even after use.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
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****· 3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

**· Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37-xxxx	dimethyl ether  Flam. Gas 1A, H220	30-50%
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CAS: 67-63-0 EINECS: 200-661-7 Index number: 603-117-00-0 Reg.nr.: 01-2119457558-25-xxxx	propan-2-ol ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	30-35%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43-xxxx	butanone ⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336 EUH066	15-20%

- **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:**

Personal protection for the First Aider.  
Immediately remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air.  
Seek medical treatment in case of complaints.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and then drink plenty of water.  
If symptoms persist consult doctor.

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

Corrosive effects.  
Dizziness  
Frost bites

**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>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Container is under pressure. May burst if heated.  
Can form explosive gas-air mixtures.  
Formation of toxic gases is possible during heating or in case of fire.  
carbon dioxide (CO<sub>2</sub>)

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Carbon monoxide (CO)

- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information** Cool endangered receptacles with water spray.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Berührung mit den Augen und der Haut vermeiden.

- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** 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**  
Open and handle receptacle with care.  
Use only in well ventilated areas.
- **Information about fire - and explosion protection:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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

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**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location.  
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**  
Keep container tightly sealed.

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Protect from heat and direct sunlight.

- **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:**

**CAS: 115-10-6 dimethyl ether**IOELV Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm**CAS: 78-93-3 butanone**IOELV Short-term value: 900 mg/m<sup>3</sup>, 300 ppm  
Long-term value: 600 mg/m<sup>3</sup>, 200 ppm**· DNELs****CAS: 67-63-0 propan-2-ol**

Inhalative	DNEL (worker)	500 mg/m <sup>3</sup> (Workers)
	DNEL (population)	89 mg/m <sup>3</sup> (cus)

- **Additional information:** The lists valid during the making were used as basis.

**· 8.2 Exposure controls**

- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**

**· General protective and hygienic measures:**

Wash hands before breaks and at the end of work.  
Keep away from foodstuffs, beverages and feed.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes.

**· Respiratory protection:**

Not necessary if room is well-ventilated.  
Short term filter device:  
Use suitable respiratory protective device in case of insufficient ventilation.  
Filter A/P2

**· Hand protection**

Protective gloves

**· Penetration time of glove material**

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

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR

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Recommended thickness of the material:  $\geq 0.65$  mm**As protection from splashes gloves made of the following materials are suitable:**

Chloroprene rubber, CR

Recommended thickness of the material:  $\geq 0.65$  mm

Penetration time (min.) : &gt; 10

**Eye/face protection**

Tightly sealed goggles

**Body protection:** Protective work clothing**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information**

- **Colour:** Different according to colouring
- **Odour:** Alcohol-like
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** -20 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** 1.7 Vol %
- **Upper:** 12 Vol %
- **Flash point:** -80 °C
- **Auto-ignition temperature:** Product is not selfigniting.
- **Decomposition temperature:** Not determined.
- **pH** Not determined.
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **Kinematic: 23 °C - 4 mm (ISO 2431)**
- **Dynamic:** Not determined.
- **Solubility**
- **water:** Fully miscible.
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Vapour pressure at 20 °C:** 8,000 hPa
- **Density and/or relative density**
- **Density at 20 °C:** <1 g/cm<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not determined.

**9.2 Other information**

- **Appearance:**
- **Form:** Aerosol
- **Important information on protection of health and environment, and on safety.**
- **Ignition temperature:** 420 °C
- **Explosive properties:** Not determined.
- **VOC (EC) g/l** 280.0 g/l

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- **Change in condition**
- **Softening point/range**
- **Oxidising properties** Not determined.
- **Evaporation rate** Not applicable.
  
- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols**  
Extremely flammable aerosol. Pressurised container: May burst if heated.
  
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** Extremely flammable aerosol.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Forms flammable gases/fumes.  
Forms explosive gases/fumes.  
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
- **10.4 Conditions to avoid**  
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.
- **10.5 Incompatible materials:** Substances to be avoided: oxidizing agent, strong.
- **10.6 Hazardous decomposition products:** Irritant gases/vapours

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**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 relevant for classification:****CAS: 115-10-6 dimethyl ether**

Inhalative LC50/4h 308 ppm (rat)

**CAS: 67-63-0 propan-2-ol**

Oral LD50 5,045 mg/kg (rat)

Dermal LD50 12,800 mg/kg (rabbit)

Inhalative LC50/4h 30 ppm (rat)

**CAS: 78-93-3 butanone**

Oral LD50 3,300 mg/kg (rat)

Dermal LD50 5,000 mg/kg (rabbit)

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

Causes serious eye irritation.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**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**

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.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:****CAS: 67-63-0 propan-2-ol**

EC50/24h &gt;10,000 mg/l (daphnia)

**CAS: 78-93-3 butanone**

LC50 2,993 mg/L (Lepomis macrochirus)

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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **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:**  
Containers can be recycled if completely empty; if not, dispose product/containers as dangerous waste.  
Observe local regulations.
- **European waste catalogue**
- 16 05 04\* gases in pressure containers (including halons) containing hazardous substances
- 15 01 10\* packaging containing residues of or contaminated by hazardous substances
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** UN1950 AEROSOLS
- **IMDG, IATA** AEROSOLS
- **14.3 Transport hazard class(es)**
- **ADR**
- 
- **Class** 2.5F Gases.

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**· Label** 2.1**· IMDG, IATA****· Class** 2 Gases.**· Label** 2.1**· 14.4 Packing group****· ADR** Void**· 14.5 Environmental hazards:****· Marine pollutant:** No**· 14.6 Special precautions for user****· EMS Number:** Warning: Gases.**· 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****· Limited quantities (LQ)** 1L**· Excepted quantities (EQ)** Code: E0

Not permitted as Excepted Quantity

**· Transport category**

2

**· Tunnel restriction code**

D

**· IMDG****· Limited quantities (LQ)** 1L**· Excepted quantities (EQ)** Code: E0

Not permitted as Excepted Quantity

**· UN "Model Regulation":**

UN 1950 AEROSOLS, 2.1

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**SECTION 15: Regulatory information**

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**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.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.

- **Department issuing SDS:** Product safety department

- **Contact:** Head of Product Safety Department
- **Date of previous version:** 31.08.2021
- **Version number of previous version:** 303

**Abbreviations and acronyms:**

- 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)
- DNEL: Derived No-Effect Level (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1A: Flammable gases – Category 1A
- Aerosol 1: Aerosols – Category 1
- Flam. Liq. 2: Flammable liquids – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- **\* Data compared to the previous version altered.**