

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

Printing date 23.08.2017

Version number 301

Revision: 23.08.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** PRO marker spray E-COLL**Article number:**

4317784565448, 4317784565455, 4317784565462, 4317784565479, 4317784565431, 4317784565493

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 Colour spray**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**

GHS02 flame

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



GHS07

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.

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· Hazard pictograms

GHS02 GHS07

· Signal word Danger**· Hazard-determining components of labelling:**

ethyl acetate

Kohlenwasserstoffe, C9-C11, n-Alkane, Isoalkane, Cycloalkane,
< 2% Aromaten

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, aromatics (< 2%)

· 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.

P271 Use only outdoors or in a well-ventilated area.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

· 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.

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· Dangerous components:		
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-xxxx	butane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21-xxxx	propane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46-xxxx	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10- <25%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29-xxxx	2-methoxy-1-methylethyl acetate ⚠ Flam. Liq. 3, H226	2.5-10%
EC number: 919-857-5 Reg.nr.: 01-2119463258-33	Kohlenwasserstoffe, C9-C11, n-Alkane, Isoalkane, Cycloalkane, < 2% Aromaten ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336	2.5-10%
EC number: 927-241-2 Reg.nr.: 01-211947843-32	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, aromatics (< 2%) ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336; Aquatic Chronic 3, H412	2.5-10%

· **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.

· **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. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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- **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:** CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.

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Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

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:**

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:** None.**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:****106-97-8 butane**

WEL	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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141-78-6 ethyl acetate

WEL	Short-term value: 400 ppm Long-term value: 200 ppm
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108-65-6 2-methoxy-1-methylethyl acetate

WEL	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
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Additional information: The lists valid during the making were used as basis.**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

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Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· Respiratory protection:

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

· Protection of hands:

Protective gloves

· Material of gloves

Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.4 mm

· 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.

· Eye protection: Recommendation: safety glasses with side protection shield

· Body protection: Protective work clothing

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

Form: Aerosol
Colour: Different according to colouring

· 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: >200 °C

· Decomposition temperature: Not determined.

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- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Not determined.
- **Explosion limits:**
 - Lower: 1.5 Vol %
 - Upper: 10.9 Vol %
- **Oxidising properties** Not determined.
- **Vapour pressure at 20 °C:** 4200 hPa
- **Density at 20 °C:** 0.64 g/cm³
- **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.
- **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** Reacts with strong oxidising agents.
- **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.

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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**
Causes serious eye irritation.
- **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**
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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **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.

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- **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:**
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

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** UN1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

· **14.3 Transport hazard class(es)**

-
- ADR**



- **Class** 2 5F Gases.
- **Label** 2.1

· **IMDG, IATA**

- **Class** 2.1
- **Label** 2.1

· **14.4 Packing group**

-
- ADR, IMDG, IATA**
- Void

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- **14.5 Environmental hazards:** Not applicable.
 - **14.6 Special precautions for user** Warning: Gases.
 - **Danger code (Kemler):** -
 - **EMS Number:** F-D,S-U
 - **Stowage Code** 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 Transport in bulk according to Annex II of Marpol and the IBC Code** 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

SECTION 15: Regulatory information

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is 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
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.
- **Exposure scenario(s)**
Exposure scenario(s) of ingredients (if present) are available on request at:

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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.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H412 Harmful to aquatic life with long lasting effects.

· Contact: sdb@ede.de**· 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 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)
- 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
- Flam. Liq. 3: Flammable liquids – Category 3
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Asp. Tox. 1: Aspiration hazard – Category 1
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3