

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

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

- **1.1 Product identifier** 600126
- **Trade name:** Forestry Marking Spray E-COLL
- **Article number:**  
4317784389815, 4317784389822, 4317784389839, 4317784389846, 4317784496780, 4317784496797
- **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.

(Contd. on page 2)

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

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Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 1)

**· Hazard pictograms**

GHS02 GHS07

**· Signal word** Danger**· Hazard-determining components of labelling:**ethyl acetate  
n-butyl acetate**· 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.  
P260 Do not breathe spray.  
P262 Do not get in eyes, on skin, or on clothing.  
P271 Use only outdoors or in a well-ventilated area.  
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.  
P403 Store in a well-ventilated place.  
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:**EUH018 In use may form flammable/explosive vapour-air mixture.  
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.

(Contd. on page 3)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 2)

· <b>Dangerous components:</b>		
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32-xxxx	butane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	25-50%
CAS: 109-87-5 EINECS: 203-714-2 Reg.nr.: 01-2119664781-31-xxxx	dimethoxymethane ⚠ Flam. Liq. 2, H225	10-<25%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	10-<25%
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5 Reg.nr.: 01-2119475103-46-xxxx	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-<25%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21-xxxx	propane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	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:**

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. If symptoms persist, 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**

No further relevant information available.

(Contd. on page 4)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 3)

- **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.
  - **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Can form explosive gas-air mixtures.
- **5.3 Advice for firefighters**
  - **Protective equipment:** Do not inhale explosion gases or combustion gases.
  - **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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.

(Contd. on page 5)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 4)

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.

Protect from heat and direct sunlight.

**· Storage class: -****· 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:****CAS: 141-78-6 ethyl acetate**IOELV Short-term value: 1468 mg/m<sup>3</sup>, 400 ppmLong-term value: 734 mg/m<sup>3</sup>, 200 ppm**· 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.

Do not inhale gases / fumes / aerosols.

**· Respiratory protection:**

Short term filter device:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2

(Contd. on page 6)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 5)

**· Protection of hands:**

Protective gloves

**· Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.4$  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:**

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****· 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:**

235 °C

**· Decomposition temperature:**

Not determined.

**· Auto-ignition temperature:**

Product is not selfigniting.

(Contd. on page 7)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 6)

- **Explosive properties:** Not determined.
- **Explosion limits:**
  - Lower:** 1.2 Vol %
  - Upper:** 11.5 Vol %
- **Vapour pressure at 20 °C:** 4200 hPa
- **Density at 20 °C:** 1 g/cm<sup>3</sup>
- **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.
  - Organic solvents:** 68.0 %
  - VOC (EC) %** 680,0 g/l
  - VOCV (CH)** 68,00 %
- **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.

EU  
(Contd. on page 8)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

Trade name: Forestry Marking Spray E-COLL

(Contd. of page 7)

### SECTION 11: Toxicological information

#### · 11.1 Information on toxicological effects

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

#### · LD/LC50 values relevant for classification:

Oral	LD50	1,200 mg/kg (rat)
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#### CAS: 106-97-8 butane

Inhalative	LC50/4h	658 ppm (rat)
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#### CAS: 109-87-5 dimethoxymethane

Oral	LD50	5,708 mg/kg (rabbit)
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#### CAS: 123-86-4 n-butyl acetate

Oral	LD50	13,100 mg/kg (rat)
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Dermal	LD50	>5,000 mg/kg (rabbit)
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Inhalative	LC50/4h	>21 ppm (rat)
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#### CAS: 141-78-6 ethyl acetate

Oral	LD50	5,620 mg/kg (rabbit)
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Inhalative	LC50/4h	1,600 ppm (rat)
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· **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.



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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 8)

**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.
- **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**

15 01 04	metallic packaging
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, IATA** AEROSOLS

(Contd. on page 10)

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

Printing date 13.11.2018

Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 9)

**· 14.3 Transport hazard class(es)****· ADR**

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

**· IMDG, IATA**

- **Class** 2 Gases.
- **Label** 2.1
  
- **14.4 Packing group**
- **ADR, IMDG** Void
  
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
  
- **14.6 Special precautions for user** Warning: Gases.
- **EMS Number:** F-D,S-U
  
- **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
- **Transport category** 2
- **Tunnel restriction code** D
- **UN "Model Regulation":** UN1950, AEROSOLS, 2.1

**SECTION 15: Regulatory information**

- **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

(Contd. on page 11)

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

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Version number 303

Revision: 13.11.2018

**Trade name: Forestry Marking Spray E-COLL**

(Contd. of page 10)

- **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.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.

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

- **Contact:** Head of Product Safety Department

**· 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)
- VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- 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