Version number 2 Printing date 30.01.2020 Revision: 06.05.2019 SECTION 1: Identification of the substance/mixture and of the company/undertaking · 1.1 Product identifier · Trade name: UNIVERSAL MARKER FORESTRY MARKING PAINT 500ml, · Article number: 630702101+, 630703101+, 630703201+, 630704001+, 630705101+, 630706101+ · 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. · Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen) • Product category PC9a Coatings and paints, thinners, paint removers · Process category PROC7 Industrial spraying PROC11 Non industrial spraying · Application of the substance / the mixture Lacquer \cdot 1.3 Details of the supplier of the safety data sheet · Manufacturer/Supplier: A.M.P.E.R.E. SYSTEM 3 rue Antoine Balard Z.I. du Vert Galant 95310 Saint-Ouen-I'Aumône FRANCE Têlêphone: + 33 1 34 64 72 72 Fax: +33 1 30 37 55 17 fds@amperesystem.com · Further information obtainable from: Customer Service · 1.4 Emergency telephone number: 0344 892 0111 **SECTION 2: Hazards identification** · 2.1 Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008 GHS02 flame H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. Aerosol 1 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. · 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. Harmful to aquatic life with long lasting effects. H412 · Precautionary statements P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. (Contd. on page 2) GB

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- (Contd. of page 1) Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P210
- 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.

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:

• Dangerous components:		
CAS: 64742-89-8 EINECS: 265-192-2 Index number: 649-267-00-0 Reg.nr.: 01-2119537181-47	Solvent naphtha (petroleum), light aliph.	20-<25%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220 Press. Gas (Comp.), H280	12.5-<20%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32	butane Flam. Gas 1, H220 Press. Gas (Comp.), H280	12.5-<20%
CAS: 141-78-6 EINECS: 205-500-4 Index number: 607-022-00-5 Reg.nr.: 01-2119475103-46	ethyl acetate Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	5-<10%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 Reg.nr.: 01-2119485395-27	isobutane Flam. Gas 1, H220 Press. Gas (Comp.), H280	5-<10%
EC number: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n- hexane Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Skin Irrit. 2, H315; STOT SE 3, H336	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 1A 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.

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- 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.
- \cdot 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 fires with water spray or alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
- \cdot 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: Inform respective authorities in case of seepage into water course or sewage system. 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.

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· 8.1 Control parameters

141-78-6 ethyl acetate

· 8.2 Exposure controls

· Respiratory protection:

· Protection of hands:

Solvent resistant gloves

the chemical mixture.

106-97-8 butane

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(Contd. of page 3) · Ingredients with limit values that require monitoring at the workplace: WEL Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm *Carc* (*if more than* 0.1% *of buta-1.3-diene*) WEL Short-term value: 1468 mg/m³, 400 ppm Long-term value: 734 mg/m³, 200 ppm · Additional information: The lists valid during the making were used as basis. · Personal protective equipment: · General protective and hygienic measures: Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. 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. In case of contact with spray dust protective gloves made of butyl shoud be used (min. 0.4 mm thick), e.g. KCL Camatril, article no. 898 or similar products Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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.

degradation · Material of gloves Butyl rubber, BR

· 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.

· For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Natural rubber, NR

• 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*

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Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range	e: 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.
Explosive properties:	Not determined.
Explosion limits:	
Lower:	1.5 Vol %
Upper:	10.9 Vol %
Vapour pressure at 20 $\cdot C$ (68 $\cdot F$):	8300 hPa (6225.5 mm Hg)
<i>Density at 20 °C (68 °F):</i>	0.8 g/cm ³ (6.7 lbs/gal)
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:	78.6 %
VOC (EC)	
	597.0 g/l
VOC-EU%	78.55 %
Solids content:	21.2 %
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

2

- 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.

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LD/LC50 values relevant for classification:		
141-78-6 ethyl acetate		
Oral	LD50	>18000 mg/kg (rab)
Dermal	LD50	5620 mg/kg (rat)
Inhalative	LC50/4 h	1600 mg/m3 (rat)
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4 h	>20 mg/m3 (rat)
Inhalative		>20 mg/m3 (rat)

· 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 (carcinogenity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity Based on available data, the classification criteria are not met.

 \cdot Carcinogenicity Based on available data, the classification criteria are not met.

 $\cdot \textit{Reproductive toxicity Based on available data, the classification criteria are not met.}$

 $\cdot \textit{STOT-single exposure Based on available data, the classification criteria are not met.}$

 $\cdot \textit{STOT-repeated exposure Based on available data, the classification criteria are not met.}$

• Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

EC50 / 48 h 3 mg/l (daphnia magna / Wasserfloh)

EC50 / 72 h 30 mg/l (*Pseudokirchneriella Subcapitata*)

LC50 / 96 h 11.4 mg/l (oncorhynchus mykiss / Regenbogenforelle)

· 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.

• Ecotoxical effects:

· Remark: Harmful to fish

• 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.

Harmful to aquatic organisms

· 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

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15 01 04 metallic packaging	(Contd. of page		
• Uncleaned packaging: • Recommendation: Disposal must be made according to official reg Pressurized container: protect from sunlight and pierce or burn, even after use. Do not spray on a naked flame or any incandesc Buildup of explosive mixtures possible without su	l do not expose to temperatures exceeding 50°C. Do not rent material.		
SECTION 14: Transport information			
- 14.1 UN-Number - ADR, IMDG, IATA	UN1950		
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1950 AEROSOLS AEROSOLS AEROSOLS, flammable		
· 14.3 Transport hazard class(es) · ADR			
Class Label	2 5F Gases. 2.1		
· IMDG, IATA			
· Class · Label	2.1 2.1		
14.4 Packing group ADR, IMDG, IATA	not regulated		
14.5 Environmental hazards:	Not applicable.		
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Code	Warning: Gases. - 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.		
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· 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.
1477	
• 14.7 Transport in bulk according to Anne. Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
\cdot Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
· Transport category	2
• Tunnel restriction code	D
· IMDG	
\cdot Limited quantities (LQ)	1L
\cdot Excepted quantities (\widetilde{EQ})	Code: E0
	Not permitted as Excepted Quantity
· UN ''Model Regulation'':	UN 1950 AEROSOLS, 2.1

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 is listed.

· Seveso category P3a FLAMMABLE AEROSOLS

 \cdot Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t

- \cdot Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· National regulations:

· Other regulations, limitations and prohibitive regulations

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is 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.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

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(Contd. of page 8) · 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) 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) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Flam. Gas 1: Flammable gases – Category 1 Aerosol 1: Aerosols - Category 1 Press. Gas (Comp.): Gases under pressure - Compressed gas Flam. Liq. 2: Flammable liquids – Category 2 Skin Irrit. 2: Skin corrosion/irritation - Category 2 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 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 \cdot * Data compared to the previous version altered. GB