### according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 719 MARKER Markierspray

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

### 1.1. product identifiers

Article No. (manufacturer/supplier) 719

Trade name/designation MARKER Markierspray

«Baustelle»

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

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

### supplier (manufacturer/importer/downstream user/distributor)

Knuchel Farben AG

Farben + Lacke Telephone: +41 (0) 32 636 50 40 Steinackerweg 11 Telefax: +41 (0) 32 636 50 45

CH-4537 Wiedlisbach

### **Department responsible for information:**

laboratory Manager

E-mail (competent person) info@knuchel.ch

1.4. Emergency telephone number

Emergency telephone number 145 (+41 (0)44 251 51 51)

### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Aerosol 1 / H222 Aerosol Extremely flammable aerosol.

Aerosol 1 / H229 Aerosol Pressurised container: May burst if heated.

Aquatic Chronic 3 / H412 Hazardous to the aquatic environment Harmful to aquatic life with long lasting effects.

2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

### **Hazard pictograms**



### Danger

### **Hazard statements**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.
H412 Harmful to aquatic life with long lasting effects.

### **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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. P273 Avoid release to the environment.

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container to industrial incineration plant.

### Hazard components for labelling

not applicable

### Supplemental hazard information

not applicable

### 2.3. Other hazards

No information available.

### **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

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**Description** solvent-based alkyd resin, containing the following hazardous substances:

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No.	REACH No. Designation	weight-%
Index No.	classification // Remark	weight-76
923-037-2	01-2119471991-29 Hydrocarbons, C10-C12, isoalkanes <2% aromatics Flam. Lig. 3 H226 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / EUH066	15 - 25
918-481-9	01-2119457273-39 Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics Asp. Tox. 1 H304	5 - 10

### **Additional information**

Full text of classification: see section 16

### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

### Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

### Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

### 4.3. Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

### **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

### Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

### Unsuitable extinguishing media

strong water jet

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

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

### 5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

### **SECTION 6: Accidental release measures**

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

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

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### 6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

### Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

### **Further information**

Vapours are heavier than air. Vapours form explosive mixtures with air.

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

### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### Occupational exposure limit values:

not applicable

### 8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

### Personal protection equipment

### Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

### Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

### Eye/face protection

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Wear closely fitting protective glasses in case of splashes.

**Body protection** 

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures** 

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls** 

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

### **SECTION 9: Physical and chemical properties**

Information on basic physical and chemical properties

Physical state: Liquid Colour: refer to label Odour: characteristic **Odour threshold:** not applicable Melting point/freezing point: not applicable

Initial boiling point and boiling range: -42 °C

Source: propane

Flammability: Extremely flammable aerosol.

Lower and upper explosion limit:

Lower explosion limit: 1.59 Vol-% **Upper explosion limit:** 10.8 Vol-% Source: propane

Flash point: -100 °C

Method: DIN 53213

Auto-ignition temperature: 240 °C

Source: Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2%

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aromatics

**Decomposition temperature:** not applicable pH at 20 °C: not applicable Cinematic viscosity (40°C): < 80 mm<sup>2</sup>/s

Viscosity at 20 °C: 20 s 4 mm

Method: DIN 53211

Solubility(ies):

Water solubility at 20 °C: partially soluble Partition coefficient: n-octanol/water: see section 12 Vapour pressure at 20 °C: 8300 mbar

Source: propane

Density and/or relative density:

Density at 20 °C: 0.91 g/cm<sup>3</sup> Relative vapour density: not applicable particle characteristics: not applicable

Other information

Solid content: 27 weight-%

solvent content:

44 weight-% Organic solvents: Water: 29 weight-%

### **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to

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section 7.

### 10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

#### 10.5. Incompatible materials

not applicable

### 10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

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### **SECTION 11: Toxicological information**

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

### **Acute toxicity**

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics oral, LD50, Rat: > 15000 mg/kg dermal, LD50, Rabbit: > 3160 mg/kg

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

oral, LD50, Rat: > 5000 mg/kg

Method: OECD 401

dermal, LD50, Rat: > 3000 mg/kg dermal, LD50, Rabbit: > 5000 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: > 9,3 mg/L (4 h)

### Skin corrosion/irritation; Serious eye damage/eye irritation

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Skin (4 h)

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

eyes

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

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Skin (4 h)

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

eyes

Causes serious eye irritation.

### Respiratory or skin sensitisation

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Skin: ; Evaluation Based on available data, the classification criteria are not met.

Respiratory system: ; Evaluation Based on available data, the classification criteria are not met.

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Skin: ; Evaluation Based on available data, the classification criteria are not met.

Respiratory system: ; Evaluation Based on available data, the classification criteria are not met.

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

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

Carcinogenicity; Evaluation Based on available data, the classification criteria are not met.

Reproductive toxicity; Evaluation Based on available data, the classification criteria are not met.

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

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

Carcinogenicity; Evaluation Based on available data, the classification criteria are not met.

Reproductive toxicity; Evaluation Based on available data, the classification criteria are not met.

### STOT-single exposure; STOT-repeated exposure

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Specific target organ toxicity (single exposure) Evaluation Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) Evaluation Based on available data, the classification criteria are not

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met.

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Specific target organ toxicity (single exposure) Evaluation Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) Evaluation Based on available data, the classification criteria are not met.

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#### **Aspiration hazard**

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Aspiration hazard; Evaluation May be fatal if swallowed and enters airways.

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

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

### Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

### Overall assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

#### 11.2. Information on other hazards

### **Endocrine disrupting properties**

No information available.

### **SECTION 12: Ecological information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

Do not allow to enter into surface water or drains.

### 12.1. Toxicity

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 220 mg/L (96 h)

Daphnia toxicity, LC50, crangon crangon: 4,3 mg/L (96 h)

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Fish toxicity, LL0, Oncorhynchus mykiss (Rainbow trout): 1000 mg/L (96 h)

Algae toxicity, EL0, green alga: 1000 mg/L (72 h)

Daphnia toxicity, EL0, Daphnia magna: 1000 mg/L (48 h)

Algae toxicity, NOELR, green alga: 1000 mg/L (72 h)

Daphnia toxicity, NOELR, Daphnia magna: 1 mg/L (21 d)

### Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Biodegradation: Evaluation Not readily biodegradable (according to OECD criteria)

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Biodegradation: Evaluation Readily biodegradable (according to OECD criteria).

### 12.3. Bioaccumulative potential

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics

Partition coefficient: n-octanol/water:

No further relevant information available.

Hydrocarbons, C10-C12, isoalkanes <2% aromatics

Distribution coefficient n-octanol/water (log KOW):

No data available

### 12.4. Mobility in soil

Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2% aromatics soil:

No further relevant information available.

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Hydrocarbons, C10-C12, isoalkanes <2% aromatics

soil:

No data available

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Endocrine disrupting properties

No information available.

#### 12.7. Other adverse effects

No information available.

### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

### Appropriate disposal / Product

#### Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Dispose of waste according to applicable legislation.

### List of proposed waste codes/waste designations in accordance with EWC

160504\* Gases in pressure containers (including halons) containing hazardous substances

\*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

### Appropriate disposal / Package

#### Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

### **SECTION 14: Transport information**

### 14.1. UN number or ID number

UN 1950

14.2. UN proper shipping name

Land transport (ADR/RID): Aerosols, flammable

Sea transport (IMDG): AEROSOLS

Air transport (ICAO-TI / IATA-DGR): Aerosols, flammable

14.3. Transport hazard class(es)

2.1

14.4. Packing group

not applicable

14.5. Environmental hazards

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

### 14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

### **Further information**

### Land transport (ADR/RID)

Tunnel restriction code D

Sea transport (IMDG)

EmS-No. F-D, S-U

### 14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

### **SECTION 15: Regulatory information**

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

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EU legislation

### Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L): 399

### **National regulations**

### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

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Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

### 15.2. Chemical Safety Assessment

### For the following substances of this mixture a chemical safety assessment has been carried out:

EC No.	Designation	REACH No.
CAS No.		
923-037-2	Hydrocarbons, C10-C12, isoalkanes <2% aromatics	01-2119471991-29
918-481-9	Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclic, <2 aromatics	% 01-2119457273-39

### **SECTION 16: Other information**

### Full text of classification in section 3

Flam. Liq. 3 / H226 Flammable liquids Flammable liquid and vapour.

Asp. Tox. 1 / H304 Aspiration hazard May be fatal if swallowed and enters airways. Aquatic Chronic 2 / H411 Hazardous to the aquatic environment Toxic to aquatic life with long lasting effects.

### Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Aerosol 1 Aerosol On basis of test data.

Aerosol On basis of test data.

Aquatic Chronic 3 Hazardous to the aquatic environment Calculation method.

### Abbreviations and acronyms

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

OEL Occupational Exposure Limit Value

BLV Biological Limit Value CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging CMR Carcinogenic, Mutagenic and Reprotoxic

DIN German Institute for Standardization / German industrial standard

DNEL Derived No-Effect Level

EAKV European Waste Catalogue Directive

EC Effective Concentration
EC European Community
EN European Standard

IATA-DGR International Air Transport Association – Dangerous Goods Regulations

IBC Code International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk ICAO-TI International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous

Goods by Air

IMDG Code International Maritime Code for Dangerous Goods ISO International Organization for Standardization

LC Lethal Concentration

LD Lethal Dose

MARPOL Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD Organisation for Economic Cooperation and Development

PBT persistent, bioaccumulative, toxic
PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

UN United Nations

VOC Volatile Organic Compounds

vPvB very persistent and very bioaccumulative

### **Further information**

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Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

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