## according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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

#### 1.1. product identifiers

Article No. (manufacturer/supplier) 268000

Trade name/designation Brush Pen Clear Lacquer

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

## Relevant identified uses:

Coating (Paint, Varnish).

## Uses advised against:

Do not use for products which come into contact with the food stuffs.

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

#### Manufacturer/supplier

Heinrich König GmbH & Co.KG

 An der Rosenhelle 5
 Telephone: +49 6101 5360 0

 D-61138 Niederdorfelden
 Telefax: +49 6101 5360 11

E-mail: Info@heinrich-koenig.de Website: www.heinrich-koenig.de

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

Laboratory Telephone: +49 6101 5360 71 Only available during office hours: Mon - Thurs 08:00 to 16:00

Friday 08:00 - 12:30

E-mail (competent person) SDB@heinrich-koenig.de

1.4. Emergency telephone number

Emergency telephone number Emergency CONTACT (24-Hour-Number): GBK

GmbH +49 (0)6132-84463

Ireland (Éireann) Emergency medical information: 8am-10pm (seven days)

contact National Poisons Information Centre, Beaumont

Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: "+353 (0)1 809 2166 "

#### **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].

Flam. Liq. 2 / H225 Flammable liquids Highly flammable liquid and vapour. Eye Irrit. 2 / H319 Serious eye damage/eye irritation Causes serious eye irritation. STOT SE 3 / H336 STOT-single exposure May cause drowsiness or dizziness.

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**

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

#### **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P370 + P378 In case of fire: Use foam to extinguish.
P403 + P235 Store in a well-ventilated place. Keep cool.

#### Hazard components for labelling

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#### n-butyl acetate

#### Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

#### 2.3. Other hazards

No information available.

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

#### 3.2. Mixtures

**Description** Acrylic resin lacquer

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

EC No. CAS No. Index No.	REACH No.  Designation  classification // Remark	weight-%
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-xxxx n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	25 < 50
201-159-0 78-93-3 606-002-00-3	01-2119457290-43-xxxx butanone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	10 < 20
918-668-5 64742-95-6 649-356-00-4	01-2119455851-35-xxxx  Hydrocarbons, C9, aromatics STOT SE 3 H335 / STOT SE 3 H336 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 3 H226	7 < 10
205-500-4 141-78-6 607-022-00-5	01-2119475103-46-xxxx Ethyl acetate Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	7 < 10
203-550-1 108-10-1 606-004-00-4	01-2119473980-30-xxxx 4-methylpentan-2-one Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335	3 < 5

#### 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**

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#### 5.1. **Extinguishing media**

#### Suitable extinguishing media

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

#### Unsuitable extinguishing media

strong water jet

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

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

#### 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**

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

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

#### **Environmental precautions** 6.2.

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.

#### 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.

#### 6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

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

#### 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.

### 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.

#### Specific end use(s)

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

## according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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#### Occupational exposure limit values:

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

TWA: 724 mg/m3; 150 ppm STEL: 966 mg/m3; 200 ppm

butanone

Index No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

TWA: 600 mg/m3; 200 ppm STEL: 899 mg/m3; 300 ppm

Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

TWA: 730 mg/m3; 200 ppm STEL: 1460 mg/m3; 400 ppm

4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

TWA: 208 mg/m3; 50 ppm STEL: 416 mg/m3; 100 ppm

#### **Additional information**

TWA: Long-term occupational exposure limit value STEL: short-term occupational exposure limit value

Ceiling: peak limitation

#### **DNEL:**

#### Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

DNEL long-term dermal (systemic), Workers: 63 mg/kg
DNEL acute inhalative (local), Workers: 1468 mg/m³
DNEL acute inhalative (systemic), Workers: 1468 mg/m³
DNEL long-term inhalative (local), Workers: 734 mg/m³
DNEL long-term inhalative (systemic), Workers: 734 mg/m³
DNEL long-term oral (repeated), Consumer: 4,5 mg/kg
DNEL acute inhalative (local), Consumer: 734 mg/m³
DNEL acute inhalative (systemic), Consumer: 734 mg/m³

DNEL acute inhalative (systemic), Consumer: 734 mg/m³ DNEL long-term inhalative (local), Consumer: 367 mg/m³ DNEL long-term inhalative (systemic), Consumer: 367 mg/m³

## 4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

DNEL long-term dermal (systemic), Workers: 11,8 mg/kg

DNEL acute inhalative (local), Workers: 208 mg/m³ DNEL acute inhalative (systemic), Workers: 208 mg/m³

DNEL long-term inhalative (local), Workers: 83 mg/m³
DNEL long-term inhalative (systemic), Workers: 83 mg/m³

DNEL long-term oral (repeated), Consumer: 4,2 mg/kg

DNEL long-term dermal (systemic), Consumer: 4,2 mg/kg

DNEL acute inhalative (local), Consumer: 155,2 mg/m³ DNEL acute inhalative (systemic), Consumer: 155,2 mg/m³

DNEL long-term inhalative (systemic), Consumer: 133,2 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 14,7 mg/m<sup>3</sup>

## Hydrocarbons, C9, aromatics

Index No. 649-356-00-4 / EC No. 918-668-5 / CAS No. 64742-95-6

DNEL long-term dermal (systemic), Workers: 25 mg/kg

DNEL long-term inhalative (systemic), Workers: 150 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 11 mg/kg

DNEL long-term dermal (systemic), Consumer: 11 mg/kg

DNEL long-term inhalative (systemic), Consumer: 32 mg/m<sup>3</sup>

#### butanone

Index No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

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DNEL long-term dermal (systemic), Workers: 1161 mg/kg DNEL long-term inhalative (systemic), Workers: 600 mg/m<sup>3</sup> DNEL long-term oral (repeated), Consumer: 31 mg/kg DNEL acute dermal, short-term (local), Consumer: 412 mg/kg

DNEL long-term dermal (systemic), Consumer: 206 mg/kg DNEL long-term inhalative (systemic). Consumer: 106 mg/m<sup>3</sup>

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4 DNEL acute dermal, short-term (systemic), Workers: 11 mg/kg

DNEL long-term dermal (systemic), Workers: 7 mg/kg DNEL acute inhalative (local), Workers: 600 mg/m<sup>3</sup> DNEL acute inhalative (systemic). Workers: 600 mg/m<sup>3</sup> DNEL long-term inhalative (local), Workers: 300 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Workers: 48 mg/m<sup>3</sup>

DNEL short-term oral (acute), Consumer: 2 mg/kg DNEL long-term oral (repeated), Consumer: 2 mg/kg

DNEL acute dermal, short-term (systemic), Consumer: 6 mg/kg DNEL long-term dermal (systemic), Consumer: 3,4 mg/kg DNEL acute inhalative (local). Consumer: 300 mg/m<sup>3</sup> DNEL acute inhalative (systemic), Consumer: 300 mg/m<sup>3</sup> DNEL long-term inhalative (local), Consumer: 35,7 mg/m<sup>3</sup> DNEL long-term inhalative (systemic), Consumer: 12 mg/m<sup>3</sup>

#### PNEC:

#### Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

PNEC aquatic, freshwater: 0,24 mg/L PNEC aquatic, marine water: 0,024 mg/L PNEC aquatic, intermittent release: 1,65 mg/L PNEC sediment, freshwater: 1,15 mg/kg PNEC sediment, marine water: 0,034 mg/kg PNEC, soil: 0,148 mg/kg

PNEC sewage treatment plant (STP): 650 mg/L

PNEC Secondary Poisoning: 200 mg/kg

#### 4-methylpentan-2-one

Index No. 606-004-00-4 / EC No. 203-550-1 / CAS No. 108-10-1

PNEC aquatic, freshwater: 0,6 mg/L PNEC aquatic, marine water: 0,06 mg/L PNEC aquatic, intermittent release: 1,5 mg/L PNEC sediment, freshwater: 8,27 mg/kg PNEC sediment, marine water: 0,83 mg/kg

PNEC, soil: 1,3 mg/kg

PNEC sewage treatment plant (STP): 27,5 mg/L

## butanone

Index No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

PNEC aquatic, freshwater: 55,8 mg/L PNEC aquatic, marine water: 55,8 mg/L PNEC aquatic, intermittent release: 55,8 mg/L PNEC sediment, freshwater: 284,7 mg/kg PNEC sediment, marine water: 284,7 mg/kg

PNEC, soil: 22,5 mg/kg

PNEC sewage treatment plant (STP): 709 mg/L

#### n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

PNEC aquatic, freshwater: 0.18 mg/L PNEC aquatic, marine water: 0,018 mg/L PNEC aquatic, intermittent release: 0,36 mg/L PNEC sediment, freshwater: 0,981 mg/kg PNEC sediment, marine water: 0,0981 mg/kg PNEC, soil: 0,0903 mg/kg

#### 8.2. **Exposure controls**

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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.

#### Eve/face protection

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

Appearance:

Physical state: Liquid Colour: colourless

**Preparations containing solvent** Odour:

Odour threshold: not determined

pH at 20 °C: N.A. Melting point/freezing point: < -90 °C

Source: n-butyl acetate

Initial boiling point and boiling range: 77 °C

> Method: calculated. Source: Ethyl acetate

12 °C Flash point:

Method: EN ISO 2719

**Evaporation rate:** 0,4 mg/s

Source: Ethyl acetate

flammability

not determined **Burning time:** 

Upper/lower flammability or explosive limits:

1,4 Vol-% Lower explosion limit:

Method: calculated.

**Upper explosion limit:** 13.7 Vol-%

Method: calculated.

Source: 1-methoxy-2-propanol

Vapour pressure at 20 °C: 38,539 mbar

Method: calculated.

Vapour density: not determined

Relative density:

Density at 20 °C: 0,91 g/cm<sup>3</sup>

Method: calculated.

Solubility(ies):

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Water solubility at 20 °C: insoluble

Partition coefficient: n-octanol/water: see section 12

Auto-ignition temperature: not determined

Decomposition temperature: not determined

Viscosity at 20 °C: 12 s 4 mm

Explosive properties: not determined
Oxidising properties: not determined

9.2. Other information

Solid content: 22,15 weight-%

solvent content:

Organic solvents: 78 weight-% Water: 0 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 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.

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

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

#### 11.1. Information on toxicological effects

#### **Acute toxicity**

Ethyl acetate

oral, LD50, Rat: 4934 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: > 20000 mg/kg

inhalative (vapours), LC50, Rat: 29,3 mg/L (4 h)

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

4-methylpentan-2-one

oral, LD50, Rat: > 2193 mg/kg

Method: OECD 401

dermal, LD50, Rat: > 2000 mg/kg

Method: OECD 402

Method: OECD 403

inhalative (vapours), LC50, Rat 8,3 - 16,6 mg/L (4 h)

Harmful by inhalation.

Hydrocarbons, C9, aromatics oral, LD50, Rat: 3592 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: > 3160 mg/kg

Method: OECD 402

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

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butanone

oral, LD50, Rat: > 2193 mg/kg

Method: OECD 423

dermal, LD50, Rabbit: > 5000 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: 34 mg/L (4 h)

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

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg

Method: OECD 423

dermal, LD50, Rabbit: > 14112 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: 23,4 mg/L (4 h)

Method: OECD 403

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

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

Causes serious eye irritation.

Ethyl acetate

eyes

Causes serious eye irritation.

4-methylpentan-2-one

eyes

Causes serious eye irritation.

butanone

eves, Rabbit

Method: OECD 405

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)

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

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

May cause drowsiness or dizziness.

Ethyl acetate

Specific target organ toxicity (single exposure), drowsiness

May cause drowsiness or dizziness.

4-methylpentan-2-one

Specific target organ toxicity (single exposure), Irritation

May cause respiratory irritation.

Hydrocarbons, C9, aromatics

Specific target organ toxicity (single exposure), Irritation

May cause respiratory irritation.

Specific target organ toxicity (single exposure), drowsiness

May cause drowsiness or dizziness.

butanone

Specific target organ toxicity (single exposure), drowsiness

May cause drowsiness or dizziness.

n-butyl acetate

Specific target organ toxicity (single exposure), drowsiness

May cause drowsiness or dizziness.

## **Aspiration hazard**

Hydrocarbons, C9, aromatics

Aspiration hazard

May be fatal if swallowed and enters airways.

#### Practical experience/human evidence

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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.

## **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

Ethyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 230 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 610 mg/L (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus: 5600 mg/L (48 h)

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

#### 4-methylpentan-2-one

Fish toxicity, LC50, Danio rerio (zebrafish): > 179 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna: > 200 mg/L (48 h)

Method: OECD 202

Bacteria toxicity, EC50, Pseudomonas putida: 275 mg/L (16 h)

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

#### Hydrocarbons, C9, aromatics

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 9,2 mg/L (96 h) Daphnia toxicity, EC50, Daphnia magna (Big water flea): 3,2 mg/L (48 h)

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Method: OECD 202

Algae toxicity, ErC50, Pseudokirchneriella subcapitata 2,6 - 2,9 mg/L (72 h)

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

#### butanone

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 2990 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 308 mg/L (48 h)

Method: OECD 202

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 1972 mg/L (72 h)

Method: OECD 201

Bacteria toxicity, EC0, Pseudomonas putida: 1150 mg/L (16 h)

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

#### n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)

Method: OECD 202

Algae toxicity, EC50, Desmodesmus subspicatus.: 397 mg/L (72 h)

Method: OECD 201

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

#### Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

#### Ethyl acetate

Fish toxicity, NOEC, Pimephales promelas (fathead minnow): > 9,65 mg/L (32 d)

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 2,4 mg/L (21 D)

Method: OECD 211

Algae toxicity, NOEC, Desmodesmus subspicatus.: > 100 mg/L (72 h)

Method: OECD 201.

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

4-methylpentan-2-one

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Daphnia toxicity, NOEC, Daphnia magna (Big water flea) 30 - 35 mg/L (21 D)

Method: OECD 211

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

Hydrocarbons, C9, aromatics Fish toxicity, LC50 (96 h)

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 12.2. Persistence and degradability

Ethyl acetate

Biodegradation: 79 % Method: OECD 301D

Readily biodegradable (according to OECD criteria).

4-methylpentan-2-one

Biodegradation:: 83 % (28 D)

Method: OECD 301 F

Readily biodegradable (according to OECD criteria).

Hydrocarbons, C9, aromatics

Biodegradation:

Readily biodegradable (according to OECD criteria).

butanone

Biodegradation: 98 % (28 d)

Readily biodegradable (according to OECD criteria).

n-butyl acetate

Biodegradation, aerobic: 83 % (28 D)

Method: OECD 301D

Readily biodegradable (according to OECD criteria).

## 12.3. Bioaccumulative potential

Ethyl acetate

Partition coefficient: n-octanol/water: 0,68

4-methylpentan-2-one

Partition coefficient: n-octanol/water: 1,31 0 - 1,9

Method: OECD 117

butanone

Partition coefficient: n-octanol/water: 0,3

n-butyl acetate

Partition coefficient: n-octanol/water: 2,3

Method: OECD 117

#### 12.4. Mobility in soil

Toxicological data are not 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. 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.

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

080111\* Waste paint and varnish containing organic solvents or other dangerous 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.

## according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2015/830

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## **SECTION 14: Transport information**

14.1. UN number

UN 1263

14.2. UN proper shipping name

Land transport (ADR/RID): Paint
Sea transport (IMDG): PAINT
Air transport (ICAO-TI / IATA-DGR): Paint

14.3. Transport hazard class(es)

3

14.4. Packing group

Ш

14.5. Environmental hazards

Land transport (ADR/RID)

No further relevant information available.

Marine pollutant

No further relevant information available.

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/E

SPECIAL PROVISIONS 640D

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## **SECTION 15: Regulatory information**

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

#### **EU** legislation

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

Maximum VOC content (g/L) of the product in a ready to use condition: 712

#### **National regulations**

## Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

## Substance/product listed in the following inventories:

DSL listed

TSCA listed

## REACH candidate list of substances of very high concern (SVHC) for the approval process.

According to the available data and / or according to the information provided by the suppliers, the product does not contain any substance that is eligible for inclusion in Annex XIV (list of substances subject to authorization) in accordance with Article 57 in conjunction with Article 59 of REACH.

## Regulation (EC) 1907/2006. material in question applies.Regulation (EC) 1907/2006 (REACH) Annex XIV (list of substances subject to authorization)

According to the available data and / or according to the information provided by the suppliers, the product does not contain any substance that is considered to be a substance that requires authorization according to REACH Regulation (EC) 1907/2006 Annex XIV.

## 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.		

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204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-xxxx
201-159-0 78-93-3	butanone	01-2119457290-43-xxxx
918-668-5 64742-95-6	Hydrocarbons, C9, aromatics	01-2119455851-35-xxxx
205-500-4 141-78-6	Ethyl acetate	01-2119475103-46-xxxx
203-550-1 108-10-1	4-methylpentan-2-one	01-2119473980-30-xxxx

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

Full text of classification in section 3

Flam. Liq. 3 / H226

STOT SE 3 / H336

Flammable liquids

STOT-single exposure

Flammable liquid and vapour.

May cause drowsiness or dizziness.

Flammable liquids

Highly flammable liquid and vapour.

Eye Irrit. 2 / H319

Serious eye damage/eye irritation

STOT SE 3 / H335

STOT-single exposure

May cause respiratory irritation.

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.

Acute Tox. 4 / H332 Acute toxicity (inhalative) Harmful if inhaled.

Classification procedure

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

Flam. Liq. 2 Flammable liquids On basis of test data.

Eye Irrit. 2 Serious eye damage/eye irritation Calculation method.

STOT SE 3 STOT-single exposure Calculation method.

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**

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

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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.

You can also find current SDSs for our standard products online on our homepage under **Downloads** in the relevant product area.

\* Data changed compared with the previous version