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

according to Regulation (EU) 2015/830

 Article No.:
 243X00
 PREMIUM Edge Pen

 Print date:
 09.01.2017
 Revision date: 09.01.2017

 Version:
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 Issue date: 09.01.2017

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

#### 1.1. product identifiers

Article No. (manufacturer/supplier) 243X00

Identification of the substance or mixture PREMIUM Edge Pen

Art.No.: 243000, 243900 all colours, all gloss values

#### 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

supplier (manufacturer/importer/downstream user/distributor)

Heinrich König & Co.KG

An der Rosenhelle 5 Telephone: +49 6101 53600 D-61138 Niederdorfelden Telefax: +49 6101 5360 11

Dept. responsible for information:

laboratory +49 6101 536071

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

May cause drowsiness or dizziness.

## **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 / H335 Specific target organ toxicity (single May cause respiratory irritation.

exposure)

STOT SE 3 / H336 Specific target organ toxicity (single

exposure)

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.
 H335 May cause respiratory 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.

P233 Keep container tightly closed.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P370 + P378 In case of fire: Use foam to extinguish.

P405 Keep locked up.

P501.2 Dispose of contents/container via the national/local hazardous waste disposal.

contains:

4-methylpentan-2-one

n-butyl acetate

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

#### 2.3. Other hazards

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

#### 3.2. Mixtures

#### Product description / chemical characterization

**Description** Acrylic resin lacquer

#### Hazardous ingredients

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

EC No. CAS No.	REACH No. Chemical name	Wt %
INDEX No.	classification // Remark	
204-658-1	01-2119485493-29-xxxx	
123-86-4	n-butyl acetate	25 < 50
607-025-00-1	Flam. Liq. 3 H226 / STOT SE 3 H336	
203-550-1	01-2119473980-30-xxxx	
108-10-1	4-methylpentan-2-one	20 < 25
606-004-00-4 Flam. Liq. 2 H225 / Acute Tox. 4 H332 / Eye Irrit. 2 H319 / STOT SE 3 H335		
918-668-5	01-2119455851-35-xxxx	
	Hydrocarbons, C9, aromatics	7 < 10
	Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT SE 3 H335 / STOT SE 3 H336	
	/ Aquatic Chronic 2 H411	
201-159-0	01-2119457290-43-xxxx	
78-93-3	butanone	7 < 10
606-002-00-3	Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	
203-603-9	· · · · · · · · · · · · · · · · · · ·	
108-65-6	2-methoxy-1-methylethyl acetate	3 < 5
607-195-00-7	Flam. Liq. 3 H226	

#### 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.

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#### 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.

#### After 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

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

#### 5.1. Extinguishing media

#### Suitable extinguishing media:

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

### Extinguishing media which must not be used for safety reasons:

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.

#### 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.

#### 6.4. Reference to other sections

Observe protective provisions (see chapter 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.

#### Precautions against fire and explosion:

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 (TRBS 2153)".

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#### 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

#### **Control parameters**

#### 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

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

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 2-methoxy-1-methylethylacetate

INDEX No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6

TWA: 274 mg/m3; 50 ppm STEL: 548 mg/m3; 100 ppm

#### **Additional information**

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

Ceiling: peak limitation

#### **DNEL:**

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/m<sup>3</sup>

DNEL acute inhalative (systemic), Workers: 208 mg/m<sup>3</sup>

DNEL long-term inhalative (local), Workers: 83 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 83 mg/m<sup>3</sup>

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/m<sup>3</sup>

DNEL acute inhalative (systemic), Consumer: 155,2 mg/m<sup>3</sup>

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

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

Hydrocarbons, C9, aromatics

EC No. 918-668-5

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 DNEL long-term dermal (systemic), Workers: 1161 mg/kg

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DNEL long-term inhalative (systemic), Workers: 600 mg/m³ 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/m³

#### n-butyl acetate

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/m³
DNEL acute inhalative (systemic), Workers: 600 mg/m³
DNEL long-term inhalative (local), Workers: 300 mg/m³
DNEL long-term inhalative (systemic), Workers: 48 mg/m³
DNEL lo

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/m³ DNEL acute inhalative (systemic), Consumer: 300 mg/m³

DNEL acute inhalative (systemic), Consumer: 300 mg/m³ DNEL long-term inhalative (local), Consumer: 35,7 mg/m³ DNEL long-term inhalative (systemic), Consumer: 12 mg/m³

#### PNEC:

#### 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

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.

#### Occupational exposure controls

#### Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). 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: PE/EVAL/PE Thickness of the glove material > 0,4 mm; Breakthrough time (maximum wearing time) > 480 min.

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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 DIN EN 374

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

#### Eye protection

Wear closely fitting protective glasses in case of splashes.

#### **Protective clothing**

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 chapter 7. No additional measures necessary.

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

9.1. Information on basic physical and chemical properties

Appearance:

Physical state: liquid Colour: refer to label

Odour: Preparations containing solvent

Odour threshold: not applicable

pH at 20 °C: N.A.

Melting point/freezing point: n.a.

Initial boiling point and boiling range: 80 °C

Method: calculated. Source: butanone

Flash point: 16 °C

Evaporation rate: not applicable

Flammability (solid, gas):

burning time (s): not applicable

Upper/lower flammability or explosive limits:

Lower explosion limit: 1,28 Vol-%

Method: calculated.

Upper explosion limit: 14 Vol-%

Method: calculated.

Source: Dipropylenglykolmethylether

Vapour pressure at 20 °C: 18,0342 mbar
Method: calculated.

not applicable

Vapour density: Relative density:

Density at 20 °C: 0,95 g/cm<sup>3</sup>

Method: calculated.

Solubility(ies):

Water solubility (g/L) at 20 °C: insoluble

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

Auto-ignition temperature: not applicable

Decomposition temperature: not applicable

Viscosity at 20 °C: 100 s 3 mm

Method: EN ISO 2431

Explosive properties: not applicable
Oxidising properties: not applicable

9.2. Other information

Solid content (%): 26,56 Wt %

solvent content:

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> Organic solvents: 73 Wt % 0 Wt % Water:



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

#### 10.1. Reactivity

#### 10.2. Chemical stability

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

#### 10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides. Keine Entstehungsgefahr der oben ange=führten Produkte bei sachgemäßem Umgang

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

Classification according to Regulation (EC) No 1272/2008 [CLP] No data on preparation itself available.

#### 11.1. Information on toxicological effects

#### **Acute toxicity**

2-methoxy-1-methylethyl acetate oral, LD50, Rat: 8532 mg/kg

dermal, LD50, Rat: > 5000 mg/kg

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

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.

#### 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

4-methylpentan-2-one

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eyes

Causes serious eye irritation.

butanone

eyes, Rabbit

Method: OECD 405

Causes serious eye irritation.

#### Respiratory or skin sensitisation

Toxicological data are not available.

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

Toxicological data are not available.

#### Specific target organ toxicity

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

Other observations:

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**

#### overall evaluation

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

There is no information available on the preparation itself.

Do not allow to enter into surface water or drains.

#### 12.1. Toxicity

2-methoxy-1-methylethylacetate

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 100 - 180 mg/l (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna: > 500 mg/l (48 h)

Based on available data the classification criteria are not met.

4-methylpentan-2-one

Fish toxicity, LC50: > 179 mg/l (96 h)

Method: OECD 202

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

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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)

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: 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-butvl 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

4-methylpentan-2-one

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

2-methoxy-1-methylethylacetate Biodegradation: 100 % (8 D)

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

2-methoxy-1-methylethylacetate

Partition coefficient: n-octanol/water: 0,43

Method: Log KOC 4-methylpentan-2-one

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

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

#### **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

packaging

Recommendation

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

#### **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) 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/E

SPECIAL PROVISIONS 640D

Sea transport (IMDG)

EmS-No. F-E, S-E

Air transport (ICAO-TI / IATA-DGR)

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

not applicable

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

 Article No.:
 243X00
 PREMIUM Edge Pen

 Print date:
 09.01.2017
 Revision date: 09.01.2017

 Version:
 1.23
 Issue date: 09.01.2017

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### **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

VOC-value (in g/L): 694,163

#### Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

VOC product category: (Cat. B/e); VOC limit value: 840 g/l

Maximum VOC content (g/L) of the product in a ready to use condition: 694,163

#### **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).

#### 15.2. Chemical Safety Assessment

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

EC No. CAS No.	Chemical name	REACH No.
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-xxxx
203-550-1 108-10-1	4-methylpentan-2-one	01-2119473980-30-xxxx
918-668-5	Hydrocarbons, C9, aromatics	01-2119455851-35-xxxx
201-159-0 78-93-3	butanone	01-2119457290-43-xxxx
203-603-9 108-65-6	2-methoxy-1-methylethyl acetate	01-2119475791-29-xxxx

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

## Full text of classification in section 3:

Full text of classification in Section 3:		
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H335	Specific target organ toxicity (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.

#### Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

#### **Further information**

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 chapter 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.