

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.06.2015

Trade name: PVC – Touch up Pens

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1.1 Product identifier

Trade name: PVC – Touch up Pens

Article number: 143.101 – 143.999

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

No further relevant information available.

Application of the substance / the mixture Printing inks

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Novoryt AG

Zietmattweg 14

CH – 4462 Rickenbach Tel. +41 61 985 83 83

Informing department:

Technical Lab & CTS

info@novoryt.ch

1.4 Emergency telephone number: During normal work time: Technical Lab & CTS

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36: Irritating to eyes.

F; Highly flammable

R11: Highly flammable.

R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for

preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotising effect.

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical

literature and by information furnished by supplier companies.

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2.2 Label elements

Labelling according to EU guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous

Materials (GefStoffV)

Code letter and hazard designation of product:

Xi Irritant

F Highly flammable

Risk phrases:

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

Safety phrases:

3/7 Keep container tightly closed in a cool place.

9 Keep container in a well-ventilated place.

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

29/35 Do not empty into drains; dispose of this material and its container in a safe way.

33 Take precautionary measures against static discharges.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3.1 Chemical characterisation: Mixtures

Description: Preparation based on PVC with organic solvents

Dangerous components:

CAS: 141-78-6

EINECS: 205-500-4

ethyl acetate

Xi R36; F R11

R66-67

Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336

40-50%

CAS: 108-65-6

EINECS: 203-603-9

2-methoxy-1-methylethyl acetate

Xi R36

R10

Flam. Liq. 3, H226; Eye Irrit. 2, H319

30-40%

CAS: 123-86-4

EINECS: 204-658-1

n-butyl acetate

R10-66-67

Flam. Liq. 3, H226; STOT SE 3, H336

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< 5.0%

CAS: 70657-70-4

EINECS: 274-724-2

2-methoxypropyl acetate

T Repr. Cat. 2 R61; Xi R37

R10

Flam. Liq. 3, H226; Repr. 1B, H360D; STOT SE 3, H335

< 0.5%

Additional information For the wording of the listed risk phrases refer to section 16.

4.1 Description of first aid measures

After inhalation Supply fresh air; consult doctor in case of symptoms.

After skin contact The product is not skin irritating.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

After swallowing In case of persistent symptoms consult doctor.

4.2

Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5.1 Extinguishing media

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

5.3 Advice for firefighters

Protective equipment: No special measures required.

Additional information Collect run-off from fire fighting

6.1

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Prevent material from reaching sewage system, holes and cellars.

Inform respective authorities in case product reaches water or sewage system.

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6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of 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 information on disposal.

7.1 Precautions for safe handling

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

None.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

7.3 Specific end use(s) No further relevant information available.

Additional information about design of technical systems: No further data; see item 7.

8.1 Control parameters

Components with critical values that require monitoring at the workplace:

141-78-6 ethyl acetate

WEL Short-term value: 400 ppm

Long-term value: 200 ppm

108-65-6 2-methoxy-1-methylethyl acetate

WEL Short-term value: 548 mg/m³, 100 ppm

Long-term value: 274 mg/m³, 50 ppm

Sk

123-86-4 n-butyl acetate

WEL Short-term value: 966 mg/m³, 200 ppm

Long-term value: 724 mg/m³, 150 ppm

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

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Wash hands during breaks and at the end of the work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment: Use breathing protection in case of insufficient ventilation.

Protection of hands:

Chemical protection gloves are suitable, which are tested according to EN 374. For short term contact (e.g.

splash protection) as well as long term contact (e.g. cleaning activities) with the constituents of inks and usual

cleaning agents an LLDPE glove of 0.06 mm thickness is recommended. According to information by the

manufacturer the average breakthrough times for usual constituents exceed 480 min. We recommend to set up

a hand protection plan, which is adapted to the needs of the local business.

Further information is provided in the publications of Bundesverband Handschutz (nos. 6 and 9) and BG

Druck und Papierverarbeitung (528.1, 528.2, 531.3, 531.5)

Eye protection: Tightly sealed safety glasses.

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Fluid

Colour: According to product specification

Smell: Ester-like

Odour threshold: Not determined.

pH-value: not applicable

Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: 76 °C

Flash point: £ 21 °C

calculated

Inflammability (solid, gaseous) Not applicable.

Ignition temperature: 315 °C

Decomposition temperature: Not determined.

Self-inflammability: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/steam mixtures is possible.

Critical values for explosion:

Lower: 1.5 Vol %

Upper: 11.5 Vol %

Steam pressure at 20 °C: 100 hPa

Density 20 °C approx. 1g/cm³

Relative density Not determined.

Vapour density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

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dynamic: Not determined.

kinematic: Not determined.

Solvent content:

Organic solvents: 80-90 %

Water: - %

9.2 Other information No further relevant information available.

10.1 Reactivity

10.2 Chemical stability

Conditions to be avoided Stable under recommended storage and handling conditions (see section 7)

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: none

Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit

may result in adverse health effects ac mucous membrane and respiratory system irritation and adverse

effects on kidney, liver and central nervous system. Symtoms and signs include headache, dizziness, fatigue,

muscular weakness, drowsiness and in extreme cases, loss of consciousness.Solvents may cause some of the

above effects by absorpion through the skin.Repeated or prolonged contact with the preparation may cause

removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorpion through the

skin. The liquid splashed in the eyes may cause irritation and reversible damage.

11.1 Information on toxicological effects

Acute toxicity:

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritant effect.

Sensitisation: No sensitizing effect known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EC

Classification Guidelines for Preparations as issued in the latest version:

(Contd. on page 6)

GB Irritant

The product should not be allowed to enter drains, water courses or the soil.

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12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Waste disposal key number: Recommendation according to EWC for the pure product: 08 03 12.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number

ADR, IMDG, IATA UN1210

UN 3175, According Special Provision A46 – not restricted

14.2 UN proper shipping name

ADR 1210 DRUCKFARBE (Dampfdruck bei 50 °C höchstens 110 kPa)

IMDG, IATA PRINTING INK

14.3 Transport hazard class(es)

ADR

Class 3 (F1) Flammable liquids.

Label 3

IMDG, IATA

Class 3 Flammable liquids.

Label 3

(Contd. on page 7)

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14.4 Packing group

ADR, IMDG, IATA II

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user Warning: Flammable liquids.

Kemler Number: 33

EMS Number: F-E,S-D

14.7 Transport in bulk according to Annex II of MARPOL73/78

and the IBC Code Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

Transport category 2

Tunnel restriction code D/E

IMDG

Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN1210, PRINTING INK (vapour pressure at 50 °C not more than 110 kPa), 3, II

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

Technical instructions (air):

Class Share in %

NK 80-90

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H360D May damage the unborn child.

R10 Flammable.

R11 Highly flammable.

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R36 Irritating to eyes.

R37 Irritating to respiratory system.

R61 May cause harm to the unborn child.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Department issuing data specification sheet:

Environment protection department.

Technical Lab & CTS

Contact:

info@novoryt.ch

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International
Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Repr. 1B: Reproductive toxicity, Hazard Category 1B

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

GB