



Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 08.04.2009

Revision: 04.03.2009

1 Identification of substance

- **Trade name:** **NewV Set UE 4300**
- **MSDS no.** 6,101
- **Application of the substance / the preparation** Printing inks
- **Manufacturer/Supplier:**
Stehlin Hostag Ink UK Ltd.
Unit D4, Linkmel Close
Queens Drive Industrial Estate
Nottingham
NG2 1NA
phone: 0115 9860477 fax: 0115 9862681
- **Informing department:**
Product Safety Department:
phone: 0115 9860477
fax: 0115 9862681
E-Mail : sds@stehlin.co.uk
- **Emergency information:** Mo - Fr 24 h

2 Hazards identification

- **Hazard designation:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment**
R 36/38 Irritating to eyes and skin.
R 43 May cause sensitisation by skin contact.
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:**
Preparation of organic and inorganic pigments and/or carbon black (not valid for unpigmented systems like printing varnishes), synthetic resins (modified acrylates), photoinitiatives and additives.
- **Dangerous components:**
which are hazardous within the meaning of statutory order on dangerous substances 67/548/EEC.
CAS: 999005-00-6 Polyester acrylate resin 15 - 20%
Xi; R 36-43

Polyesteracrylat 5 - 10%
Xi; R 36

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CAS: 52408-84-1	Propoxylated Glyceryl Triacrylate	5 - 10%
NLP: 500-114-5	Xi; R 36	
CAS: 21245-02-3	2-ethylhexyl 4-(dimethylamino)benzoate	2.5 - 5%
EINECS: 244-289-3	Xi; R 36/37/38-53	
CAS: 83846-85-9	4-Benzoyl-4-methyldiphenyl sulphide	2.5 - 5%
EINECS: 281-064-9	Xi; R 36/38	
CAS: 3524-68-3	pentaerythritol triacrylate	2.5 - 5%
EINECS: 222-540-8	Xi; R 36/38-43	
	acrylates with the exception of those specified elsewhere in this Annex	5 - 10%
	Xi, N; R 36/37/38-51/53	
	Epoxy Acrylate	< 2.5%
	Xi; R 36/38	

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

4 First aid measures

· **General information**

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

In case of unconsciousness place person in the recovery position. Never give anything by mouth.

· **After inhalation**

Remove to fresh air.

Keep patient warm and at rest.

· **After skin contact**

Remove contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

· **After eye contact**

Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Remove contact lenses. Obtain medical attention.

· **After swallowing** Do NOT induce vomiting. Obtain medical attention.

5 Fire fighting measures

· **Suitable extinguishing agents** Alcohol resistant foam, CO₂, powders, water spray.

· **For safety reasons unsuitable extinguishing agents** Water jet.

· **Special hazards caused by the material, its products of combustion or flue gases:**

Fire will produce dense black smoke.

Exposure to hazardous decomposition products may cause a health hazard.

Appropriate breathing apparatus may be required.

Cool closed containers exposed to fire with water.

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- **Additional information** Collect run-off from fire fighting.

6 Accidental release measures

- **Person-related safety precautions:** Ventilate the area.
- **Measures for environmental protection:**
Do not allow to enter drains. If the product contaminates rivers and lakes or sewers inform respective authorities.
- **Measures for cleaning/collecting:**
Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations. Clean preferably with a detergent. Avoid use of solvents.

7 Handling and storage

- **Handling**
- **Information for safe handling:**
Avoid inhalation of vapour. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Comply with health and safety at work laws. Avoid concentrations higher than the occupational exposure limits (see Section 8), if applicable.
- **Storage**
- **Requirements to be met by storerooms and containers:**
Keep container tightly closed. No smoking.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- **Further information about storage conditions:**
Always keep in containers of the same material as the original one. Store in a dry, well ventilated place. Keep away from heat and direct sunlight. Store in accordance with the particular national regulations concerning water pollution.
Observe label precautions.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**
If relevant apply technical measures to comply with the occupational exposure limits. This can be achieved by a good general extraction and - if practically feasible - by the use of a local exhaust ventilation.
- **Components with critical values that require monitoring at the workplace:**
Numerical data - if specified - are taken from the valid national lists.
- **Personal protective equipment**
- **Breathing equipment:**
If the occupational exposure limits can't be met, in exceptional cases suitable respiratory protection should be worn only for a short period of time.

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· **Protection of hands:**

For prolonged or repeated contact use gloves.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

Applicable for example are gloves of KCL GmbH, D 36124 Eichenzell, e-mail: vertrieb@kcl.de with following specification (Laboratory test according EN 374)

Recommend protective glove:

Article / Name /Material / Thickness Material / Breakthrough Time Remarks

Nr. 730/ Camatril Velours / Nitril / 0,4 mm Level 6 > 480 min. by full contact

Nr. 743/ Dermatril / Nitril / 0,2 mm Level 2 > 30 min. by splash contact

This recommendation is only for the product delivered by us and its intended purpose.

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Use safety eyewear designed to protect against splash of liquids.

· **Body protection:**

Working clothes must not consist of textiles which show a dangerous melting behaviour in case of fire.

All parts of the skin should be washed after contact.

9 Physical and chemical properties:

· **General Information**

- | | |
|----------------------------------|---|
| Form: | liquid |
| Colour: | according to the tradename of the product |
| Smell: | characteristic |
| Flash point: | > 100°C |
| Density at 20°C | 1.19 g/cm ³ |
| Solubility in / Miscibility with | |
| Water: | partly or not miscible |

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

Stable under recommended storage and handling conditions (see section 7).

· **Materials to be avoided:**

Keep well away from oxidising agents and strongly alkaline or strongly acid materials in order to avoid exothermic reactions.

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· **Dangerous products of composition:**

Exposition to high temperatures may produce hazardous decomposition products such as: carbon dioxide, carbon monoxide and smoke.

11 Toxicological information

The Preparation is classified according to the conventional method (calculation method of the EC-directive 1999/45/EC). Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in skin dryness. The product may be absorbed through the skin.

12 Ecological information:

The Product should not be allowed to enter drains of water courses or soil.

- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** Harmful to aquatic organisms

13 Disposal considerations

- **Product:**
- **Recommendation** Do not allow to enter drains.
- **European waste catalogue** 08 03 12: waste ink containing dangerous substances
- **Uncleaned packagings:**
- **Recommendation:** Not orderly emptied cans and ink remnants are special waste.

14 Transport information

Not classified according to transport regulations for dangerous goods (like ADR/RID, IMDG and ICAO/IATA).

- **Maritime transport IMDG/GGVSea:**
- **Marine pollutant:** No

15 Regulatory information

- **Designation according to EC guidelines:**
- **Code letter and hazard designation of product:**



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· **Hazard-determining components of labelling:**

Polyester acrylate resin
pentaerythritol tetraacrylate
pentaerythritol triacrylate

· **Risk phrases:**

36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects
in the aquatic environment.

· **Safety phrases:**

24 Avoid contact with skin.
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.
37 Wear suitable gloves.

· **National regulations**

· **Technical instructions (air):**

· **VOC-Content (EU):** 0,00 %

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information:

The information on this Safety Data Sheet is based on the present state of our knowledge and on current EU and national laws. The user's working conditions are beyond our knowledge and control. It is always the responsibility of the user to take all necessary steps in order to fulfil the demands laid down in the local rules and legislation. The information in this Safety Data Sheet is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the product's properties.

· **Relevant R-phrases**

36 Irritating to eyes.
36/37/38 Irritating to eyes, respiratory system and skin.
36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.



NewV set® – UE 4300 premium

The UE 4300 series of UV inks has been developed for sheet-fed offset, rotary label (letterpress) and continuous forms printing and, thanks to its high dot definition and excellent transfer (running) properties, is suitable first and foremost for high-quality printing.

NewV set - UE 4300		Fastness properties per DIN 16 524/25				
Euroscale		Light WS	Alcohol	Solvent mixture	Alkali	UV varnish
Yellow	41 UE 4300	5	+	+	+	+
Magenta	42 UE 4300	5	+	+	-	+
Cyan	43 UE 4300	8	+	+	+	+
Black	49 UE 4300	8	+	+	+	+
Lightfast version						
Yellow	41 UE 4001	7	+	-	+	+
Magenta	42 UE 4001	7	+	+	+	+

Special properties

- Very stable printing characteristics, high dot definition
- Minimal misting
- Very wide range of fount solution tolerance
- High colour intensity
- Rapid adjustment of a stable ink / water balance
- Suitable for alcohol-free printing
- Suitable for laser printers (pre-production test is necessary).
- Colour shades in accordance with DIN ISO 2846-1/12647-2

Range of applications

The UE 4300 series is suitable for:

- Coated and uncoated papers and card stocks
Highly absorbent stocks can greatly reduce the curing speed.
- Thermal papers
A number of thermal papers react to UV vehicles; for this reason, always carry out a test prior to beginning the print run.
- Conditionally for pretreated PE, PP (corona or gas flame) or preprimed material*
- Top-coated grades of board*

We recommend application of a UV varnish in order to provide effective protection of the print image (see TI 5.10.02 entitled "NewV lac for UV curing").



* Non-absorbent substrates must have a surface tension of at least 38 mN/m in order to ensure optimum ink adhesion. In view of the large number of substrate suppliers and different substrates and substrate grades available, we recommend you carry out an adhesion test prior to beginning the print run. Subsequent laser printing of UV-printed products

When using these inks in a laser printer, overprinting problems can arise, especially in image areas with very high ink coverage. We recommend that ink coverage of 50% is not exceeded in such areas.

When the fusing temperatures of toners are high, there is a possibility of deposits building up on the fusing roller or fusing assembly of the hot-laser printer – even more so when the amount of ink and varnish being applied is high – due to thermoplastic properties of the cured ink or varnish films.

PANTONE® Rhodamine Red, Purple, Blue 072, Reflex Blue and HKS® 27, 33 and 43 also cause problems due to the poor temperature resistance of their pigments as the toner is fused. They must be substituted by inks of a similar colour shade but with temperature-resistant pigments.

Food and confectionery packaging

More information on the subject of food and confectionery (semi-luxury foods and tobacco) packaging can be found in the information sheet entitled “Printing inks for food packaging” published by the German Printing Ink Manufacturers’ Association and in TI 5.04.01 entitled “NewV UV inks and varnishes for food packaging”.

Printing auxiliaries

The inks are always supplied ready to use. The following auxiliaries are available to help you adjust the process inks in exceptional cases:

- **NewV sup Paste Reducer 40 U 1002 (reduces tack)**
- **NewV sup Activator Paste 40 U 1003**

For further auxiliaries, see TI 5.12.01 entitled “NewV sup UV printing auxiliaries”.

Classification

Safety Data Sheet available on request.

Shelf life

At least 12 months when stored under the correct conditions (20°C, protected against heat and light).

How supplied

2.5-kg cans