



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

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

- 1.1 Product identifier
- Trade name: **KRISTAL 1K UV Surfacer**
- Article number: 5810
- 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 Paint
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Kristal Coatings B.V.  
Platinawerf 22B  
6641 TL Beuningen - Holland  
Tel: 0031 24 67 526 36  
Fax: 0031 24 67 533 60
- Further information obtainable from: Product safety department: info@kristalcoatings.nl
- 1.4 Emergency telephone number:  
National Poisoning Information Centre - Bilthoven - The Netherlands  
T +31 (0)30 274 88 88  
Restricted to physicians for information on ingredients.

### SECTION 2: Hazards identification

- 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.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02



GHS07

- Signal word Danger
- Hazard-determining components of labelling:  
hexamethylene diacrylate  
Poly(oxy-1,2-ethandiyl),.alpha.-[(2Z)-3-carboxy-1-oxo-2-propenyl]-.omega.-hydroxy-,C9-11-alkylethers  
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
- Hazard statements  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.
- Precautionary statements  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P260 Do not breathe mist/vapours/spray.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 1)

- Additional information:
  - EUH066 Repeated exposure may cause skin dryness or cracking.
  - Restricted to professional users.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.
- Dangerous components:

CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49 05-2114366599-29	acetone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46 05-2116947025-47	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	2,5-10%
CAS: 108-10-1 EINECS: 203-550-1 Reg.nr.: 01-2119473980-30	4-methylpentan-2-one ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	2,5-10%
CAS: 13048-33-4 EINECS: 235-921-9	hexamethylene diacrylate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	2,5-10%
CAS: 110-43-0 EINECS: 203-767-1	heptan-2-one ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H336	0,5-2,5%
CAS: 162881-26-7 ELINCS: 423-340-5	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide ⚠ Skin Sens. 1, H317; Aquatic Chronic 4, H413	0,5-2,5%
CAS: 64742-95-6 EINECS: 265-199-0 Reg.nr.: 01-2119455851-35	Solvent naphtha (petroleum), light arom. ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H332; STOT SE 3, H335-H336	≤ 0,5%
CAS: 709014-50-6	Poly(oxy-1,2-ethandiyl),.alpha.-[(2Z)-3-carboxy-1-oxo-2-propenyl]-.omega.-hydroxy-,C9-11-alkylethers ⚠ Skin Sens. 1, H317	≤ 0,5%
CAS: 85940-40-5 EINECS: 288-927-9	Fatty acids, tall-oil, reaction products with pentaethylenehexamine ⚠ Eye Dam. 1, H318; ⚠ Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315	≤ 0,5%

### SECTION 4: First aid measures

- 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation:
  - Supply fresh air and to be sure call for a doctor.
  - In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  - Immediately wash with water and soap and rinse thoroughly.
  - If skin irritation continues, consult a doctor.
- After eye contact:
  - Remove contactlenses.
  - Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  - Do not induce vomiting; call for medical help immediately.
  - Rinse mouth.
- 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.

EU —  
(Contd. on page 3)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 2)

### SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO<sub>2</sub> or powder. Fight larger fights with alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Carbon monoxide (CO)
- 5.3 Advice for firefighters
- Protective equipment:
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.

### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents
- 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 disposal information.

### SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- Information about fire - and explosion protection:
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store in a cool location.
    - Store only in the original receptacle.
  - Information about storage in one common storage facility: Store away from oxidising agents.
  - Further information about storage conditions: Keep container tightly sealed.
- Storage class: 3
- 7.3 Specific end use(s) No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

#### 67-64-1 acetone

IOELV Long-term value: 1210 mg/m<sup>3</sup>, 500 ppm

#### 108-10-1 4-methylpentan-2-one

IOELV Short-term value: 208 mg/m<sup>3</sup>, 50 ppm  
Long-term value: 83 mg/m<sup>3</sup>, 20 ppm

#### 110-43-0 heptan-2-one

IOELV Short-term value: 475 mg/m<sup>3</sup>, 100 ppm  
Long-term value: 238 mg/m<sup>3</sup>, 50 ppm  
Skin

- DNELs

#### 67-64-1 acetone

Dermal Long-term exposure - systemic effects 186 mg/kg bw/day (wki)

(Contd. on page 4)

— EU —



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 3)

Inhalative Acute - short-term exposure - local effects 2420 mg/m3 (worker)  
 Long-term exposure - systemic effects 1210 mg/m3 (worker)

**141-78-6 ethyl acetate**

Dermal Long-term exposure - systemic effects 63 mg/kg bw/day (worker)  
 Inhalative Acute - short-term exposure - local effects 1468 mg/m3 (worker)  
 Acute - short-term exposure - systemic effects 1468 mg/m3 (worker)  
 Long-term exposure - local effects 734 mg/m3 (worker)  
 Long-term exposure - systemic effects 734 mg/m3 (worker)

## · PNECs

**67-64-1 acetone**

PNEC 100 mg/l (STP)  
 10,6 mg/l (aqua, freshwater)  
 21 mg/l (aqua, intermittent releases)  
 1,06 mg/l (aqua, marine water)  
 3,04 mg/kg (sediment marine water)  
 30,4 mg/kg (sediment freshwater)  
 29,5 mg/kg (soil)

**141-78-6 ethyl acetate**

PNEC 650 mg/l (STP)  
 0,26 mg/l (aqua, freshwater)  
 1,65 mg/l (aqua, intermittent releases)  
 0,026 mg/l (aqua, marine water)  
 0,125 mg/kg (sediment marine water)  
 1,25 mg/kg (sediment freshwater)

· Additional information: The lists valid during the making were used as basis.

## · 8.2 Exposure controls

## · Personal protective equipment:

## · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.

## · Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter AX

Use suitable respiratory protective device in case of insufficient ventilation.

## · Protection of hands:



Protective gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

## · Material of gloves

Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

## · Penetration time of glove material

Thickness of the gloves  $\geq$  0,625 mm (for acetone)Value for the permeation: Level  $\geq$  480 min (for acetone)

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

## · Eye protection:



Tightly sealed goggles

(Contd. on page 5)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 4)

· Body protection: Solvent resistant protective clothing

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Fluid
Colour:	According to product specification

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 56 °C

· Flash point: 2 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 235 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

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

##### · Explosion limits:

Lower: 2,1 Vol %

Upper: 13,0 Vol %

· Vapour pressure at 20 °C: 233 hPa

· Density at 20 °C: 8 -9 Poise

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

· Solubility in / Miscibility with water:

Slightly soluble.

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

##### · Viscosity:

Dynamic at 20 °C: 8-9 Poise

Kinematic: Not determined.

##### · Solvent content:

Organic solvents: 36,9 %

VOC (EC) 36,91 %

Solids content: 56,5 %

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

#### · 10.1 Reactivity

#### · 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions: Reacts with strong oxidising agents.

· 10.4 Conditions to avoid: High temperatures.

· 10.5 Incompatible materials: Oxidizing agents.

(Contd. on page 6)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 5)

- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- Acute toxicity:

- LD/LC50 values relevant for classification:

#### 67-64-1 acetone

Oral LD50 >2000 mg/kg (rat)  
 Dermal LD50 >2000 mg/kg (rabbit)  
 Inhalative LC50/4h > 20 mg/l (rat)

#### 141-78-6 ethyl acetate

Oral LD50 4100 mg/kg (mouse)  
 Dermal LD50 5620 mg/kg (rat)  
 20000 mg/kg (rabbit)  
 Inhalative LC50/4h 30 mg/l (rat)

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: Irritating effect.

- Sensitisation: Sensitisation possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
 Irritant

### SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

#### 67-64-1 acetone

EC50 8800 mg/l (daphnia magna)  
 EC50/96h 8300 mg/l (lepomis macrochirus)  
 IC50 >100 mg/l (algae)  
 >100 mg/l (fish)

#### 141-78-6 ethyl acetate

EC50/48h 5600 mg/l (algae)  
 610 mg/l (daphnia magna)  
 LC50/96h 230 mg/l (fish)  
 NOEC/21d 2,4 mg/l (daphnia magna)  
 NOEC/32d >9,65 mg/l (fish)

- 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:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak into the ground.

- 12.5 Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

- 12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

- 13.1 Waste treatment methods

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

(Contd. on page 7)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 6)

- European waste catalogue  
08 01 11\* waste paint and varnish containing organic solvents or other dangerous substances
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

### SECTION 14: Transport information

- 14.1 UN-Number  
ADR, IMDG, IATA UN1263
- 14.2 UN proper shipping name  
ADR 1263 PAINT  
IMDG, IATA PAINT
- 14.3 Transport hazard class(es)  
ADR, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3
- 14.4 Packing group  
ADR, IMDG, IATA III
- 14.5 Environmental hazards:  
Marine pollutant: No
- 14.6 Special precautions for user  
Warning: Flammable liquids.
- Danger code (Kemler): 33
- EMS Number: F-E,S-E
- 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: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- Transport category 3
- Tunnel restriction code D/E

- IMDG
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation": UN1263, PAINT, 3, III

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Other regulations, limitations and prohibitive regulations  
The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

— EU —  
(Contd. on page 8)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 07.10.2014

Version number 1

Revision: 07.10.2014

Trade name: **KRISTAL 1K UV Surfacer**

(Contd. of page 7)

### SECTION 16: Other information

This information is based on our present knowledge. However, this 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.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.  
 H413 May cause long lasting harmful effects to aquatic life.

- **Department issuing MSDS:** Product safety department.

- **Contact:** Mrs. A. Derks

- **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)  
 VOC: Volatile Organic Compounds (USA, EU)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Flam. Liq. 2: Flammable liquids, Hazard Category 2  
 Flam. Liq. 3: Flammable liquids, Hazard Category 3  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1  
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1  
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2  
 Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4

— EU —