



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

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

- 1.1 Product identifier
- Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**
- Article number: 5226
- 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. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- 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



GHS08

- Signal word Warning
- Hazard-determining components of labelling:
xylene
- Hazard statements
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

(Contd. on page 2)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 1)

· 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): 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.
 P314 Get medical advice/attention if you feel unwell.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH208 Contains Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compounds with amides from diethylenetriamine and tall-oil fatty acids. May produce an allergic reaction.

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: 123-86-4	n-butyl acetate	10-25%
EINECS: 204-658-1	⚠Flam. Liq. 3, H226; ⚠STOT SE 3, H336	
Reg.nr.: 01-2119485493-29		
CAS: 1330-20-7	xylene	10-25%
EINECS: 215-535-7	⚠Flam. Liq. 3, H226; ⚠STOT RE 2, H373; ⚠Asp. Tox. 1, H304; ⚠Acute Tox. 4, H312; Acute	
Reg.nr.: 01-2119488216-32	Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335; Aquatic Chronic 3,	
01-2119486136-34	H412	
01-2119555267-33		
CAS: 64742-95-6	Solvent naphtha (petroleum), light arom.	2,5-10%
EINECS: 265-199-0	⚠Flam. Liq. 3, H226; ⚠Asp. Tox. 1, H304; ⚠Aquatic Chronic 2, H411; ⚠Acute Tox. 4,	
Reg.nr.: 01-2119455851-35	H332; STOT SE 3, H335-H336	
CAS: 100-41-4	ethylbenzene	0,5-2,5%
EINECS: 202-849-4	⚠Flam. Liq. 2, H225; ⚠STOT RE 2, H373; ⚠Asp. Tox. 1, H304; ⚠Acute Tox. 4, H332; Aquatic	
	Chronic 3, H412	
CAS: 64742-95-6	Solvent naphtha (petroleum), light aromatic	≤ 0,5%
EINECS: 265-199-0	⚠Flam. Liq. 3, H226; ⚠Asp. Tox. 1, H304; ⚠Aquatic Chronic 2, H411; ⚠Acute Tox. 4,	
	H332; STOT SE 3, H335-H336	
CAS: 222716-38-3	Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compounds with	≤ 0,5%
	amides from diethylenetriamine and tall-oil fatty acids	
	⚠STOT RE 2, H373; ⚠Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠Acute Tox. 4,	
	H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	

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

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Take affected persons out into the fresh air.
 Immediately remove any clothing soiled by the product.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.
 If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.
 Remove contactlenses.

· After swallowing:

Do not induce vomiting; call for medical help immediately.
 Rinse out mouth and then drink plenty of water.

(Contd. on page 3)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 2)

- 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.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: CO₂ 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.

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:
Inform respective authorities in case of seepage into water course or sewage system.
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 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:
 - 1330-20-7 xylene**
IOELV Short-term value: 442 mg/m³, 100 ppm
Long-term value: 221 mg/m³, 50 ppm
Skin
 - 100-41-4 ethylbenzene**
IOELV Short-term value: 884 mg/m³, 200 ppm
Long-term value: 442 mg/m³, 100 ppm
Skin
- DNELs
 - 123-86-4 n-butyl acetate**
Inhalative Acute - short-term exposure - local effects 960 mg/m³ (worker)

(Contd. on page 4)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 3)

Acute - short-term exposure - systemic effects 960 mg/m3 (worker)
 Long-term exposure - local effects 480 mg/m3 (worker)
 Long-term exposure - systemic effects 480 mg/m3 (worker)

1330-20-7 xylene

Dermal Long-term exposure - systemic effects 180 mg/kg bw/day (worker)
 Inhalative Acute - short-term exposure - local effects 289 mg/m3 (worker)
 Acute - short-term exposure - systemic effects 289 mg/m3 (worker)
 Long-term exposure - systemic effects 77 mg/m3 (worker)

100-41-4 ethylbenzene

Dermal Acute - short-term exposure - local effects 293 mg/kg bw/day (worker)
 Long-term exposure - systemic effects 180 mg/kg bw/day (worker)
 Inhalative Long-term exposure - systemic effects 77 mg/m3 (worker)

PNECs**123-86-4 n-butyl acetate**

PNEC 35,6 mg/l (STP)
 0,18 mg/l (aqua, freshwater)
 0,36 mg/l (aqua, intermittent releases)
 0,018 mg/l (aqua, marine water)
 0,0981 mg/l (sediment marine water)
 0,981 mg/kg (sediment freshwater)

1330-20-7 xylene

PNEC 6,58 mg/l (STP)
 0,237 mg/l (aqua, freshwater)
 0,327 mg/l (aqua, intermittent releases)
 0,327 mg/l (aqua, marine water)
 12,46 mg/kg (sediment marine water)

100-41-4 ethylbenzene

PNEC 9,6 mg/l (STP)
 0,1 mg/l (aqua, freshwater)
 0,1 mg/l (aqua, intermittent releases)
 0,01 mg/l (aqua, marine water)
 13,7 mg/kg (sediment freshwater)
 2,68 mg/kg (soil)

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

8.2 Exposure controls

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **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 A.

· **Protection of hands:**

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**

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.

Butyl rubber, BR

· **Penetration time of glove material**

Thickness of the gloves ≥ 0.3 mm (butylacetate)

Value for the permeation: Level ≥ 60 min (butylacetate)

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

(Contd. on page 5)



Printing date 18.06.2015

Safety data sheet

according to 1907/2006/EC, Article 31

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 4)

· Eye protection:



Tightly sealed goggles

· 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:	Liquid
Colour:	Dark grey
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	124 °C

· Flash point: 25 °C

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 370 °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:	1,1 Vol %
Upper:	7,5 Vol %

· Vapour pressure at 20 °C: 10,7 hPa

· Density at 20 °C: 1,53 g/cm³

· 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:	12 Poise
Kinematic:	Not determined.

· Solvent content:

Organic solvents:	30,2 %
VOC (EC)	30,19 %

· 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.

(Contd. on page 6)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 5)

- 10.3 Possibility of hazardous reactions Reacts with strong oxidizing agents.
- 10.4 Conditions to avoid High temperatures.
- 10.5 Incompatible materials:
 - Acids.
 - Alkaline products.
 - Oxidizing agents.
- 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:
 - 123-86-4 n-butyl acetate**
 - Oral LD50 10760 mg/kg (rat) (OECD 423)
 - Dermal LD50 >14112 mg/kg (rabbit) (OECD 402)
 - Inhalative LC50/4h 23,4 mg/l (rat) (OECD 403 in vivo, aerosol)
 - 1330-20-7 xylene**
 - Oral LD50 3523 mg/kg (rat)
 - Dermal LD50 12126 mg/kg bw (rabbit)
 - Inhalative LC50/4h 27124 mg/m3 (rat)
 - 64742-95-6 Solvent naphtha (petroleum), light arom.**
 - Oral LD50 >6800 mg/kg (rat)
 - Dermal LD50 >3400 mg/kg (rab)
 - Inhalative LC50/4h >10,2 mg/l (rat)
 - 100-41-4 ethylbenzene**
 - Oral LD50 3500 mg/kg (rat)
 - Dermal LD50 17800 mg/kg (rabbit)
 - 64742-95-6 Solvent naphtha (petroleum), light aromatic**
 - Oral LD50 >6800 mg/kg (rat)
 - Dermal LD50 >3400 mg/kg (rab)
 - Inhalative LC50/4h >10,2 mg/l (rat)
- Primary irritant effect:
- Skin corrosion/irritation No irritant effect.
- Serious eye damage/irritation No irritating effect.
- Respiratory or skin sensitisation No sensitising effects known.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:
 - 123-86-4 n-butyl acetate**
 - EC50/48h 44 mg/l (daphnia magna)
 - EC50/72h 647,7 mg/l (desmodesmus supspicatus)
 - IC50 356 mg/l (tetrahymena pyriformis) (40 h)
 - LC50/96h 18 mg/l (pimphales promelas) (OECD 203)
 - NOAEL/72h 200 mg/l (desmodesmus supspicatus)
 - 1330-20-7 xylene**
 - EC50/48h 7,4 mg/l (daphnia magna)
 - IC50 1-10 mg/l (TISBE Marine copepod)
 - 1-10 mg/l (algae)
 - > 100 mg/l (bacteria)
 - 1-10 mg/l (fish)
 - NOAEL 0,1-1 mg/l (TISBE Marine copepod)
 - 1-10 mg/l (fish)

(Contd. on page 7)

EU



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 6)

100-41-4 ethylbenzene

EC50/24h >100 mg/l (daphnia magna)

· 12.2 Persistence and degradability No further relevant information available.

· Degree of elimination:

123-86-4 n-butyl acetate

OECD 301D 83 % (l) (28 d)

· 12.3 Bioaccumulative potential No further relevant information available.

· 12.4 Mobility in soil No further relevant information available.

· Ecotoxicological effects:

· Remark: Harmful to fish

· 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.

Harmful to aquatic organisms

· 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.

· 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,ADN, IMDG, IATA

UN1263

· 14.2 UN proper shipping name

· ADR/ADN

1263 PAINT

· IMDG, IATA

PAINT

· 14.3 Transport hazard class(es)

· ADR,ADN, IMDG, IATA



· Class

3 Flammable liquids.

· Label

3

· 14.4 Packing group

· ADR,ADN, IMDG, IATA

III

· 14.5 Environmental hazards:

· Marine pollutant:

No

· 14.6 Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

30

· EMS Number:

F-E,S-E

· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

(Contd. on page 8)

EU



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: **KRISTAL HS Surfacer 52 Dark Grey PLUS**

(Contd. of page 7)

· Transport/Additional information:

· ADR/ADN

- 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

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000t

· 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.

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.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

· Contact: Dhr. B. Peters

· Abbreviations and acronyms:

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- 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

(Contd. on page 9)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.06.2015

Version number 5

Revision: 15.06.2015

Trade name: KRISTAL HS Surfacer 52 Dark Grey PLUS

(Contd. of page 8)

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 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
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, 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 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

EU