



# Safety data sheet

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

Printing date 16.06.2015

Version number 8

Revision: 16.06.2015

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

- 1.1 Product identifier
- Trade name: **KRISTAL Silicon Remover D6 STD**
- Article number: 3113+
- 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 Degreaser
- 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.



GHS08 health hazard

Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3      H336 May cause drowsiness or dizziness.

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



GHS02



GHS07



GHS08



GHS09

- Signal word Danger
- Hazard-determining components of labelling:  
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
- Hazard statements  
H225 Highly flammable liquid and vapour.  
H336 May cause drowsiness or dizziness.  
H304 May be fatal if swallowed and enters airways.

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H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P243 Take precautionary measures against static discharge.
- P260 Do not breathe mist/vapours/spray.
- P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P314 Get medical advice/attention if you feel unwell.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 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:

EC number: 920-750-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	75-100%
Reg.nr.: 01-2119473851-33	⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ STOT SE 3, H336	

CAS: 141-78-6	ethyl acetate	2,5-10%
EINECS: 205-500-4	⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	
Reg.nr.: 01-2119475103-46		
05-2116947025-47		

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: 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 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.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing agents:

Foam  
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.

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- **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).  
Dispose contaminated material as waste according to item 13.  
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:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**

### Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Dermal	Long-term exposure - systemic effects	773 mg/kg bw/day (worker) ECHA database
Inhalative	Long-term exposure - systemic effects	2035 mg/m3 (worker) ECHA database

### 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

### 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.

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- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
  - Keep away from foodstuffs, beverages and feed.
  - Wash hands before breaks and at the end of work.
  - Do not inhale gases / fumes / aerosols.
- Respiratory protection:
  - Short term filter device:
  - 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.
- 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
  - 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  $\geq 0,4$  mm (Hydrocarbons)
  - Value for the permeation: Level  $\geq 480$  min (Hydrocarbons)
  - 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

- 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:	Clear
- Odour: Characteristic
- Odour threshold: Not determined.
- pH-value: Not determined.
- Change in condition
 

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	107 °C
- Flash point: 3 °C
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature:
 

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:	Not determined.
Upper:	Not determined.
- Vapour pressure: Not determined.
- Density at 20 °C: 0,74 g/cm<sup>3</sup>
- Relative density: Not determined.

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- 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: 1 mPas
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 100,0 %
  - VOC (EC) 100,00 %
- 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 oxidizing agents.
- 10.4 Conditions to avoid High temperatures.
- 10.5 Incompatible materials: 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:

#### Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Oral LD50 >5000 mg/kg (rat)  
 Dermal LD50 >2800 mg/kg (rabbit)  
 Inhalative LC50/4h >23,3 mg/l (rat) (vapour, OECD 403)

#### 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:
- Skin corrosion/irritation No irritant effect.
- Serious eye damage/irritation No irritating effect.
- Respiratory or skin sensitisation No sensitising effects known.
- 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:

### SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:

#### Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

EC50/48h 4,6 mg/l (daphnia)  
 EC50/72h 10 mg/l (pseudokirchneriella subcapitata)  
 LC50/96h 3-10 mg/l (oncorhynchus mykiss)

#### 141-78-6 ethyl acetate

EC50/48h 5600 mg/l (algae)  
 610 mg/l (daphnia magna)

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- 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.
- Degree of elimination:

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

OECD 98 % (/) (OECD 301 F, 28 days, readily biodegradable)

- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark: Toxic for 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.  
Also poisonous for fish and plankton in water bodies.  
Toxic for 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  
07 01 04\* other organic solvents, washing liquids and mother liquors
- 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 RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS
- IMDG PAINT RELATED MATERIAL (HYDROCARBONS, C7-C9 N-ALKANES, ISO-ALKANES, CYCLICS), MARINE POLLUTANT
- IATA PAINT RELATED MATERIAL
- 14.3 Transport hazard class(es)
- ADR, ADN, IMDG



- Class 3 Flammable liquids.
- Label 3

· IATA



- Class 3 Flammable liquids.
- Label 3

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· 14.4 Packing group	II
· ADR, ADN, IMDG, IATA	
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: HYDROCARBONS, C7-C9 N-ALKANES, ISO-ALKANES, CYCLICS
· Marine pollutant:	Yes
· Special marking (ADR/ADN):	Symbol (fish and tree)
· 14.6 Special precautions for user	Symbol (fish and tree)
· Danger code (Kemler):	Warning: Flammable liquids.
· EMS Number:	33
· 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	F-E, S-E
· Transport/Additional information:	Not applicable.
<hr/>	
· ADR/ADN	
· 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
<hr/>	
· 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":	UN1263, PAINT RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS, 3, II

## 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.
- 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.  
H304 May be fatal if swallowed and enters airways.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.
- Contact: Dhr. B. Peters
- 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

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Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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