



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.07.2015

Version number 6

Revision: 07.07.2015

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

- 1.1 Product identifier
- Trade name: **KRISTAL Silicon Remover D8 Slow PLUS**
- Article number: 3115
- 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. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

STOT RE 1 H372 Causes damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.

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

Acute Tox. 4 H332 Harmful if inhaled.

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, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

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- **Hazard statements**

- H226 Flammable liquid and vapour.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.
- H304 May be fatal if swallowed and enters airways.
- H411 Toxic to aquatic life with long lasting effects.

- **Precautionary statements**

- P260 Do not breathe mist/vapours/spray.
- P280 Wear protective gloves / eye protection / face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P331 Do NOT induce vomiting.
- 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:**

CAS: 64742-82-1	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	75-100%
EC number: 919-446-0	⚠ Flam. Liq. 3, H226; ⚠ STOT RE 1, H372; Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411;	
Reg.nr.: 01-2119458049-33	⚠ STOT SE 3, H336	
CAS: 123-86-4	n-butyl acetate	2,5-10%
EINECS: 204-658-1	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	
Reg.nr.: 01-2119485493-29		

- **Additional information:** For the wording of the listed risk phrases refer to section 16.
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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:** Generally the product does not irritate the skin.
 - **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.
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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.
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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).
Dispose 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 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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**

64742-82-1 Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Dermal	Long-term exposure - systemic effects	44 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	330 mg/m3 (wki)

123-86-4 n-butyl acetate

Inhalative	Acute - short-term exposure - local effects	960 mg/m3 (worker)
	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)

- **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)

- **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:
 - 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.
 - Nitrile rubber, NBR
- Penetration time of glove material
 - Thickness of the gloves ≥ 0.38 mm (hydrocarbons, C9-C12, n-alkanes, iso-alkanes, cyclic, aromates (2-25%))
 - Value for the permeation: Level ≥ 480 min (hydrocarbons, C9-C12, n-alkanes, iso-alkanes, cyclic, aromates (2-25%))
 - 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
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SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Appearance:

Form:	Liquid
Colour:	Transparent
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	140 °C
- Flash point: 33 °C
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 200 °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:	0,6 Vol %
Upper:	7 Vol %
- Vapour pressure: Not determined.
- Density at 20 °C: 0,79 g/cm³
- 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:

64742-82-1 Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Oral	LD50	>15000 mg/kg (rat)	OESO 401
Dermal	LD50	>3400 mg/kg (rabbit)	OESO 402
Inhalative	LC50/4h	>13,1 mg/l (rat)	OESO 403

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)

- 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:

64742-82-1 Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

EL50/48h	10-22 mg/l (daphnia magna)
EL50/72h	4,6-10 mg/l (pseudokirchneriella subcapitata)
LL50/96h	10-30 mg/l (oncorhynchus mykiss)
LOEC/21d	0,203 mg/l (daphnia magna)
NOEC/21d	0,097 mg/l (daphnia magna)

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NOELR/72h 1 mg/l (pseudokirchneriella subcapitata)

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)

- 12.2 Persistence and degradability No further relevant information available.
- Degree of elimination:

64742-82-1 Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

BOD28 74,7 % (l)

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: 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.
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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, MARINE POLLUTANT

· IATA

PAINT RELATED MATERIAL

- 14.3 Transport hazard class(es)

· ADR,ADN, IMDG



· Class

3 Flammable liquids.

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· Label 3

· IATA



· Class 3 Flammable liquids.
 · Label 3
 · 14.4 Packing group
 · ADR,ADN, IMDG, IATA III
 · 14.5 Environmental hazards:
 · Marine pollutant: Yes
 Symbol (fish and tree)
 · Special marking (ADR/ADN): Symbol (fish and tree)
 · 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.

· 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 RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS, 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.

· 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

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H372 Causes damage to the central nervous system through prolonged or repeated exposure. Route of exposure: Inhalative.

H411 Toxic to aquatic life with long lasting effects.

· Contact: Dhr. B. Peters

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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
LD50: Lethal dose, 50 percent
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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