

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

- **1.1 Product identifier**
- **Trade name:** **DARACLAR® 920**
- **Registration number:** 01-2119379499-16-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
 - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
 - SU19 Building and construction work
 - SU1 Agriculture, forestry, fishery
 - SU7 Printing and reproduction of recorded media
 - SU5 Manufacture of textiles, leather, fur
 - SU6b Manufacture of pulp, paper and paper products
 - SU11 Manufacture of rubber products
 - SU12 Manufacture of plastics products, including compounding and conversion
 - SU16 Manufacture of computer, electronic and optical products, electrical equipment
 - SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
- **Product category**
 - PC0 Other
 - PC2 Adsorbents
 - PC40 Extraction agents
 - PC1 Adhesives, sealants
 - PC9a Coatings and paints, thinners, paint removers
 - PC9b Fillers, putties, plasters, modelling clay
 - PC8 Biocidal products
 - PC12 Fertilisers
 - PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
 - PC27 Plant protection products
 - PC31 Polishes and wax blends
 - PC18 Ink and toners
 - PC23 Leather treatment products
 - PC26 Paper and board treatment products
 - PC32 Polymer preparations and compounds
 - PC34 Textile dyes, and impregnating products
 - PC35 Washing and cleaning products (including solvent based products)
 - PC28 Perfumes, fragrances
 - PC14 Metal surface treatment products
 - PC15 Non-metal-surface treatment products
 - PC33 Semiconductors
 - PC19 Intermediate
 - PC37 Water treatment chemicals
- **Process category**
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
 - PROC5 Mixing or blending in batch processes
 - PROC14 Tableting, compression, extrusion, pelletisation, granulation
 - PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
- **Environmental release category** ERC2 Formulation into mixture
- **Article category** Not applicable.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - GRACE GmbH
 - In der Hollerhecke 1

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Trade name: DARACLAR® 920

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D-67547 Worms
Tel.: +49 (0)6241 - 403 1549
FAX: +49 (0)6241 - 403 1211

- **Further information obtainable from:**
Abteilung Sicherheit und Umweltschutz, GRACE Europe Holding GmbH.
MSDS.Davison@grace.com
- **1.4 Emergency telephone number:** Tel.: +49 (0)172 7129276

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The substance is not classified according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** None
- **Hazard pictograms** None
- **Signal word** None
- **Hazard statements** None
- **2.3 Other hazards**
The product is very adsorbent and may have a drying effect on skin and eyes.
When exceeding the WEL (Workplace Exposure Limit) a mechanical overburdening of the respiratory system is possible.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- **Description:**

· **Components (CAS No. and EINECS No.):**

CAS: 7631-86-9	amorphous silicon dioxide, chemically prepared	99-100%
EINECS: 231-545-4		
Reg.nr.: 01-2119379499-16-XXXX		

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Take note of the following instructions:
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Generally the product does not irritate the skin.
Wash with water.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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- **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:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information available.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear personal protective equipment.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **6.2 Environmental precautions:** Damp down dust with water spray.
- **6.3 Methods and material for containment and cleaning up:**
Sweep the spill area; avoid raising dust.
- **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.
No dangerous substances are released.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of dust.
Keep receptacles tightly sealed.
Provide suction extractors if dust is formed.
Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.
Prevent static electric sparks.
- **Information about fire - and explosion protection:**
Protect against electrostatic charges.
The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in dry conditions.
This product is hygroscopic.
- **7.3 Specific end use(s)** No further relevant information available.

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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:** Not required.

- **DNELs**

7631-86-9 amorphous silicon dioxide, chemically prepared

Inhalative	DNEL(acute-local)	4 mg/m ³ (Worker) with reference to the German OEL of 4 mg/m ³ for synthetic amorphous silica
	DNEL(long-local)	4 mg/m ³ (Worker) with reference to the German OEL of 4 mg/m ³ for synthetic amorphous silica

- **Additional information:** Valid lists at time of creation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further relevant information available.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:**
If the WEL value is exceeded.
Filter P2
- **Protection of hands:**
Wear gloves for protection against mechanical hazards according to EN 388.
Use gloves of stable material (e.g. Nitrile) - if necessary tri-coted to improve the wearability.
After use of gloves apply skin-cleaning agents and skin cosmetics.



Protective gloves.

Check the condition of the gloves prior to each use.
Check the permeability prior to each anew use of the glove.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Preventive skin protection by use of skin-protecting agents is recommended.

- **Material of gloves**

EN 388: Minimum requirements for efficiency level 1 for all groups.

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

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**

The exact break through time has to be obtained from the manufacturer of the protective gloves and has to be observed.

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

EN 420: Minimum requirements for efficiency level 1 for all groups.

- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Butyl rubber, BR

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Nitrile rubber, NBR

· **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR
Nitrile rubber, NBR

· **Not suitable are gloves made of the following materials:** cloth gloves

· **Eye protection:**



Safety glasses.

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: Powder
Colour: White

· **Odour:** Characteristic
· **Odour threshold:** Not applicable.

· **pH-value at 20 °C:** 4.0-9.0

· **Change in condition**

Melting point/freezing point: >1700 °C

Initial boiling point and boiling range: >1700 °C

· **Flash point:** Not determined.

· **Flammability (solid, gas):** Product is not flammable.

· **Ignition temperature:** Not applicable.

· **Decomposition temperature:** Not applicable.

· **Auto-ignition temperature:** Product is not self-igniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: - Vol %

Upper: - Vol %

· **Vapour pressure at 20 °C:** - hPa

· **Density at 20 °C:** 2,17 - 2,20 g/cm³

· **Bulk density at 20 °C:** 70 - 600 kg/m³

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

water: Insoluble.

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

· **Viscosity:**

Dynamic at 20 °C: - mPas

· **Molecular weight** 60.08 g/mol (calculated)

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• **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **Information on the likely routes of exposure**
- **Delayed and immediate effects and chronic effects from short or long term exposure**
- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

• **LD/LC50 values relevant for classification:**

7631-86-9 amorphous silicon dioxide, chemically prepared

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>5,000 mg/kg (rabbit) (no guidance available)
Inhalative	LC0	>140->2,000 mg/m ³ /4h (rat) (OCED 403) Maximum attainable concentration, mortality does not appear.

• **Primary irritant effect:**

• **Skin corrosion/irritation**

7631-86-9 amorphous silicon dioxide, chemically prepared

Skin | IS | 0 (rabbit) (OECD 404)

Based on available data, the classification criteria are not met.

• **Serious eye damage/irritation**

7631-86-9 amorphous silicon dioxide, chemically prepared

Eye | IS | 0 (rabbit) (OECD 405)

Based on available data, the classification criteria are not met.

• **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

• **Respiratory sensitisation** No further relevant information available.

• **Skin sensitisation** No further relevant information available.

• **Repeated dose toxicity**

7631-86-9 amorphous silicon dioxide, chemically prepared

Oral	NOAEL (90 d)	9,000 mg/kg bw/day (rat) (OECD 408)
Inhalative	NOAEC (90 d)	1 mg/m ³ (rat) (OECD 413)

• **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

• **Carcinogenicity** No further relevant information available.

• **Mutagenicity**

7631-86-9 amorphous silicon dioxide, chemically prepared

AMES Test	>5 mg/plate (in-vitro) (OECD 471) negative, with and without metabolic activation ECHA 2012
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· **Reproductive toxicity****7631-86-9 amorphous silicon dioxide, chemically prepared**

Oral NOAEL (maternal toxicity) 1,350 mg/kg bw/day (rat) (OECD 414)

NOAEL (teratogenicity) 1,350 mg/kg bw/day (rat) (OECD 414)

- **Specific target organ toxicity (single exposure)** No further relevant information available.
- **Specific target organ toxicity (repeated exposure)** No further relevant information available.
- **Aspiration hazard** No further relevant information available.

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:**· **Fish toxicity****7631-86-9 amorphous silicon dioxide, chemically prepared**

LC0 (96 h) (static) 10,000 mg/l (zebra fish) (OECD 203)

· **Water flea toxicity****7631-86-9 amorphous silicon dioxide, chemically prepared**

EC50 (24 h) >1,000 mg/l (Daphnia magna) (OECD 202)

· **Algae toxicity****7631-86-9 amorphous silicon dioxide, chemically prepared**EC50 (72 h) >10,000 mg/l (Scenedesmus subspicatus) (OECD 201)
comparable substance

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:**
Amorphous silica dioxide is chemically and biologically inert.
By the insolubility in water there is a separation at every filtration and sedimentation process.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **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:** Disposal must be made according to official regulations.

· **Waste disposal key:**

The disposal of the product has to be carried out in accordance with the legal requirements. EWC waste codes are strictly industry-oriented, therefore waste classification has to be done by the waste producer.

· **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	None
· 14.2 UN proper shipping name	
· ADR, ADN, IMDG, IATA	None
· 14.3 Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	None
· 14.4 Packing group	
· ADR, IMDG, IATA	None
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications. GRACE recommendation for air transport: Cargo aircraft only.

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008 None
- Hazard pictograms None
- Signal word None
- Hazard statements None
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- National regulations:
- Waterhazard class: WGK nwg (AwSV of 18.04.2017): not hazardous to waters.
- Registered in the international inventory lists:
 - TSCA (USA)
 - DSL (Canada)
 - AICS (Australia)
 - KECI (Korea)
 - PICCS (Philippines)
 - IECSC (China)
 - EINECS/REACH (Europe)
 - MITI (Japan)
 - NZIoC (New Zealand)
 - CSNN (Taiwan)
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has 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.

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The first date of preparation 27.01.2015**Number of revision times and the latest revision date** 8.1 / 27.09.2017**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

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· **Others** No further relevant information available.· * **Data compared to the previous version altered.**

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Annex: Exposure scenario

- **Short title of the exposure scenario**
- **Sector of Use**
 - SU5 Manufacture of textiles, leather, fur
 - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
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 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
- **Article category** Not applicable.
- **Environmental release category** ERC2 Formulation into mixture
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.

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- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Solid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting consumer exposure** Not required.
- **Other operational conditions affecting consumer exposure during the use of the product**
Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** No special measures required.
- **Personal protective measures** No special measures required.
- **Measures for consumer protection** No special measures required.
- **Environmental protection measures**
- **Air** No special measures required.
- **Water** No special measures required.
- **Disposal measures** Disposal must be made according to official regulations.
- **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Dispose of product residues with household waste.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

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