



**Safety Data Sheet (91/155/EEC)**

WACKER HDK® N20  
HYDROPHILIC AMORPHOUS FUMED SILICA

Version: 1.3 (GB)      Date of print: 03.10.03      Date of last alteration: 20.11.2002

**4.5 After swallowing:**

Drink plenty of water. In cases of sickness seek medical advice (show label if possible).

**5 Fire-fighting measures****5.0 General information:**

Product does not burn. Use extinguishing measures appropriate to the source of the fire.

**5.1 Suitable extinguishing media:**

not applicable

**5.2 Extinguishing media which must not be used for safety reasons:**

not applicable

**5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases:**

not applicable

**5.4 Special protective equipment for fire fighting:**

not applicable

**6 Accidental release measures****6.1 Personal precautions:**

Avoid dust formation. Do not breathe dust. Wear personal protection equipment (see section 8).

**6.2 Environmental precautions:**

Cover any spilled material in accordance with regulations to prevent dispersal by wind.

**6.3 Methods for cleaning up:**

Damp down dust and fill into containers.

**7 Handling and storage****7.1 Handling****Precautions for safe handling:**

Avoid dust formation.

**Precautions against fire and explosion:**

Electrostatic discharge possible during transport and processing. Take precautionary measures against electrostatic charging. Ensure all parts of equipment are well earthed. Use inert gas when working with combustible and explosive liquids. Avoid dust deposit, remove dust regularly.

**7.2 Storage****Conditions for storage rooms and vessels:**

none known

**Advice for storage of incompatible materials:**

not applicable

**Further information for storage:**

Keep container dry and tightly closed.

**8 Exposure controls and personal protection equipment****8.1 Exposure limits****Threshold limit values (TLV):**

CAS No.	Material	Type	mg/m <sup>3</sup>	ppm	Dust fract.	Fibre/m <sup>3</sup>
7631-86-9	Silica, amorphous	TLV_GB	6,0		Inhalable dust	
7631-86-9	Silica, amorphous	TLV_GB	2,4		Respirable dust	

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**8.2 Exposure limited and controlled****8.2.1 Exposure in the work place limited and controlled****General protection and hygiene measures:**

Do not breathe dust. Do not eat, drink or smoke when handling. Application of skin cream recommended to ensure optimum protection of skin.

**Personal protection equipment****Respiratory protection:**

In case of dust formation: fine dust mask without protection rating .

**Hand protection:**

Recommendation: rubber gloves . Gloves suitable for up to 60 minutes' use.

**Eye protection:**

Recommendation: protective goggles .

**Skin protection:**

antistatic working shoes .

**8.2.2 Exposure to the environment limited and controlled:**

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**9 Physical and chemical properties****9.1 General information**

Physical state / form.....: solid - powder

Colour.....: white

Odour.....: odourless

**9.2 Important information about the protection of health, safety and the environment**

**Method  
(67/548/EEC):**

Melting point / melting range.....: 1700 °C

Flash point.....: not applicable

Autoignition temperature.....: not applicable

Lower explosion limit (LEL).....: not applicable

Upper explosion limit (UEL).....: not applicable

Density.....: approx. 2,2 g/cm<sup>3</sup>

(DIN 51757)

Bulk density.....: 20 - 130 kg/m<sup>3</sup>

Water solubility / miscibility.....: virtually insoluble at 20 °C

pH-Value.....: 3,6 - 4,5 (40 g/l H<sub>2</sub>O)

Viscosity (dynamic).....: not applicable

**10 Stability and reactivity****10.0 General information:**

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

**10.1 Conditions to avoid:**

none known

**10.2 Materials to avoid:**

none known

**10.3 Hazardous decomposition products:**

If stored and handled in accordance with standard industrial practices and local regulations where applicable: none known .

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**11 Toxicological information****11.0 General information:**

According to our present state of knowledge no damaging effect expected when treated in accordance with standard industrial practices and local regulations where applicable.

**11.1 Toxicological tests****Acute toxicity (LD50/LC50-values relevant to classification):**

Exposition	Value/value range	Species	Source
oral	> 5000 mg/kg	rat (Limit Test)	literature
dermal	> 5000 mg/kg	rabbit (Limit Test)	literature
by inhalation	> 0,139 mg/l/4h	rat (Limit Test)	literature

**Specific symptoms in animal test:**

Acute inhalation: At the technically highest possible concentration no mortality in animal test. .

**Primary irritation:**

Exposition	Effect	Species/Testsystem	Source
to skin	not irritating	rabbit	literature
to eyes	not irritating	rabbit	literature

**Further information:**

According to previous experience, non-mutagenic.

**Subacute to chronic toxicity:****Result:**

Animal tests have not revealed any carcinogenic or genetically harmful effects. Chronic respiratory exposure: Changes in respiratory organs observed in animal experiments (inflammatory processes) were reversible; no indication of silicosis.

**11.2 Experience with man:**

By prolonged contact with the product no damage to health was observed.

**12 Ecological information****12.1 Ecotoxicity**

Species	Test method	Exp. Time	Result	Source
zebra fish (Brachydanio rerio)	acute	96 h	> 10000 mg/l (LC50)	literature
Daphnia magna	acute	24 h	> 10000 mg/l (EC50)	literature

No likelihood of damaging effect on water organisms.

**Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition):**

According to present experience, no adverse effects on water purification plants. Can be removed mechanically from waste water.

**12.2 Mobility**

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**12.3 Persistence and degradability****Biodegradation / further information:**

Inorganic substance: Not applicable.

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**Further information:**

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**12.4 Bio-accumulation potential****Further information:**

No harmful effects expected.

**12.5 Other harmful effects**

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**12.6 Further ecological information****General information:**

No environmental problems expected if handled and treated in accordance with standard industrial practices and local regulations where applicable.

**13 Disposal considerations****13.1 Material****Recommendation:**

After solidification, material can be stored together with domestic waste. Observe local/state/federal regulations.

**13.2 Uncleaned packaging****Recommendation:**

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations.

**14 Transport information****14.1 Land transport GGVSE/ADR and RID****Road ADR:**

Valuation.....: not Regulated

**Railway RID:**

Valuation.....: not Regulated

**14.2 Inland navigation GGVBinsch/ADNR****14.3 Transport by sea GGVSee/IMDG-Code**

Valuation.....: not Regulated

**14.4 Air transport ICAO-TI/IATA-DGR**

Valuation.....: not Regulated

**14.5 Transport/further information****Postal and courier service:**

German postal dispatch.....: permitted

**Informing dept. ref. to heading 14. Transport information:**

Department MW-G (Gefahrgut-Service), Telefax: +49/(0) 8677/83-5589, Telephone: +49/(0) 8677/83-4950

**15 Regulatory information****15.1 Warning Label (EU)**

R-Phrase	Description
R-	-

S-Phrase	Description
S-	-

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**15.2 National regulations:**

SI 1999/3232:	CHIP Regulations 1999
SI 1999/437:	COSHH Regulations 1999
SI 1999/3242:	Management of Health & Safety at Work Regulations 1999
Health & Safety at Work Act 1974	
SI 1993/1643:	Environmental Protection Act 1993 & Subsidiary Regulations.
Other national and local measures relating to the workplace, pollution control, environmental protection and waste control.	

**16 Other information****16.1 Material**

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations. Properties of the product are to be found in the respective product leaflet.

**16.2 Further information:**

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version.

**n.a. = not applicable      n.s. = not subject to**

**Details of international registration status**

Listed on the following inventories:

IECSC  
TSCA  
EINECS  
ENCS  
PICCS  
ECL  
AICS  
DSL