

**Safety Data Sheet**

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Material: 60004600

HDK®N20  
HYDROPHILIC PYROGENIC SILICA

Version: 2.1 (US)

Date of print: 06/25/2015

Date of last alteration: 06/24/2015

**1. Product and company identification****1.1 Identification of the substance or preparation:****Commercial product name:****HDK®N20**  
**HYDROPHILIC PYROGENIC SILICA**

Use of substance / preparation

Industrial.  
Auxiliary agent for: Plastics , Lacquer , Building materials , elastomer products , cosmetics .**1.2 Company/undertaking identification:**

Manufacturer/distributor:

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
81737 München  
Germany

Customer information:

Wacker Chemical Corporation  
3301 Sutton Road  
Adrian, Michigan 49221-9397  
USA  
InfoLine:  
Tel (517) 264-8240, Fax (517) 264-8740  
Hours of operation:  
Monday - Friday, 8 am to 5 pm (eastern standard time)  
Corporate website: www.wacker.com**Emergency telephone no. (24h):**

(517) 264-8500

**Transportation emergency:**(800) 424-9300 (CHEMTREC, USA)  
(703) 527-3887 (CHEMTREC, international)

This SDS was prepared by the Regulatory Affairs and Product Safety Department (RAPS) of Wacker Chemical Corporation.

**2. Hazards identification****2.1 Classification of the substance or mixture****Classification (GHS):**

Not a hazardous substance or mixture.

**2.2 Label elements****Labelling (GHS):**

No labeling according to GHS required.

**2.3 Other hazards**

No data available.

**3. Composition/information on ingredients****3.1 Chemical characterization (substance)**

CAS No.	Chemical characteristics
112945-52-5	Pyrogenic micro-dispersed silica, synthetic X-ray amorphous silicon dioxide (SiO <sub>2</sub> )

**3.2 Information on ingredients:**

This material does not contain any reportable hazardous ingredients.

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product.



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### 4. First-aid measures

#### 4.1 General information:

Get medical attention if irritation occurs or if breathing becomes difficult.

#### 4.2 After inhalation

If inhaled, remove to fresh air.

#### 4.3 After contact with the skin

If contact with skin, wash skin with plenty of water or with water and soap.

#### 4.4 After contact with the eyes

If contact with eyes, immediately flush eyes with plenty of water.

#### 4.5 After swallowing

Drink plenty of water. Get medical attention if symptoms occur. Show label if possible.

### 5. Fire-fighting measures

#### 5.1 Flammable properties:

Property:	Value:	Method:
Flash point.....	not applicable	
Boiling point / boiling range .....	not applicable	
Lower explosion limit (LEL) .....	not applicable	
Ignition temperature.....	not applicable	

#### 5.2 Fire and explosion hazards:

Material does not burn. Electrostatic charging is possible.

#### 5.3 Recommended extinguishing media:

Use extinguishing measures appropriate to the source of fire.

#### 5.4 Unsuitable extinguishing media:

not applicable

#### 5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

not applicable

#### 5.6 Fire fighting procedures:

Fire fighters should wear full protective clothing including a self-contained breathing apparatus.

### 6. Accidental release measures

#### 6.1 Precautions:

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

HAZWOPER PPE Level: D

#### 6.2 Containment:

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

Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

#### 6.3 Methods for cleaning up

Damp down dust and fill into containers.

### 7. Handling and storage

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**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****8.1 Engineering controls****Ventilation:**

Use only with adequate ventilation.

**Local exhaust:**

In case of dust formation: ( To maintain concentration below TLV. ) Local exhaust ventilation which meets the requirements of ANSI Z9.2 is recommended to control airborne contaminants at the point of use.

**8.2 Associate substances with specific control parameters such as limit values****Maximum airborne concentrations at the workplace:**

CAS No.	Material	Type	mg/m <sup>3</sup>	ppm	Dust fract.
7631-86-9	Silica, amorphous	OSHA PEL	0.8		
	Particulates not otherwise classified	ACGIH TWA	10.0		Inhalable dust/mist
	Particulates not otherwise classified	ACGIH TWA	3.0		Respirable dust/mist

Re Silica, amorphous: The exposure limits given for CAS-No. 7631-86-9 cover all types of synthetic amorphous silica; it appears, that there is an error in the OSHA PEL entry for amorphous silica. There should have been a footnote to the Z-3 Table indicating that the percent SiO<sub>2</sub> in formula (80 mg/m<sup>3</sup> + % SiO<sub>2</sub>) refers to crystalline silica content and not to amorphous silica. For evaluation of U.S. exposure measurements WACKER recommends use of the current NIOSH REL (6 mg/m<sup>3</sup>) instead of the old Z-3 Table entry.

Re Particulates not otherwise classified: The value is for particulate matter containing no asbestos and < 1% crystalline silica (ACGIH).

**8.3 Personal protection equipment (PPE)****Respiratory protection:**

In case of dust formation: A NIOSH approved particulate respirator with a P95 or higher rating.

**Hand protection:**

Recommendation: rubber gloves .

**Eye protection:**

Recommendation: Safety glasses with side shields or chemical safety goggles.

**Other protective clothing or equipment:**

Barrier cream may be used to prevent dryness of skin.

**8.4 General hygiene and protection measures:**

Do not breathe dust/vapor/mist/gas/aerosol. Wash thoroughly after handling.

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**9. Physical and chemical properties****9.1 Appearance**

Physical state / form .....: solid - powder  
 Colour.....: white  
 Odour .....: odourless

**9.2 Safety parameters**

Property:	Value:	Method:
Melting point / melting range .....	1700 °C (3,092 °F)	
Boiling point / boiling range .....	not applicable	
Flash point.....	not applicable	
Ignition temperature.....	not applicable	
Lower explosion limit (LEL) .....	not applicable	
Vapour pressure.....	not applicable	
Density .....	approx. 2.2 g/cm <sup>3</sup> at 20 °C (68 °F)	(DIN51757)
Bulk density.....	20 - 130 kg/m <sup>3</sup>	
Water solubility / miscibility.....	virtually insoluble at 20 °C (68 °F)	
pH-Value .....	3.6 - 4.5	(DIN EN ISO787-9)
Viscosity (dynamic) .....	not applicable	

**9.3 Further information**

VOC.....: This material does not contain any reportable VOCs. 0 g/l (calculated value)

**10. Stability and reactivity****10.1 General information:**

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

**10.2 Conditions to avoid****10.3 Materials to avoid**

none known

**10.4 Hazardous decomposition products**

If stored and handled properly: none known .

**10.5 Further information:**

Hazardous polymerization cannot occur.

**11. Toxicological information****11.1 Information on toxicological effects****11.1.1 Acute toxicity****Assessment:**

Based on the available data acute toxic effects are not expected after single oral exposure. Based on the available data acute toxic effects are not expected after single dermal exposure. Based on the available data acute toxic effects are not expected after short-term inhalative exposure.

**Product details:**

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD <sub>50</sub> : > 5000mg/kg	rat	literature
dermal	LD <sub>50</sub> : > 5000mg/kg	rabbit	literature

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by inhalation (dust)	LC <sub>50</sub> : > 0.139 mg/l; 4 h At the technically highest possible concentration no mortality in animal test.	rat	literature
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**11.1.2 Skin corrosion/irritation****Assessment:**

Based on the available data a clinically relevant skin irritation hazard is not expected.

**Product details:**

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature

**11.1.3 Serious eye damage / eye irritation****Assessment:**

Based on the available data a clinically relevant eye irritation hazard is not expected.

**Product details:**

Result/Effect	Species/Test system	Source
not irritating	rabbit	literature

**11.1.4 Respiratory or skin sensitization****Assessment:**

By handling the product for many years no damage to health was observed.

**11.1.5 Germ cell mutagenicity****Assessment:**

According to our present state of knowledge not mutagenic.

**11.1.6 Carcinogenicity****Assessment:**

Animal tests have not revealed any carcinogenic effects.

**11.1.7 Reproductive toxicity****Assessment:**

In animal experiments there have not been any indications of reproduction toxicity.

**11.1.8 Specific target organ toxicity (single exposure)****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**11.1.9 Specific target organ toxicity (repeated exposure)****Assessment:**

Changes in the lungs (inflammatory processes) observed in animal experiments after chronic inhalative exposure were reversible; no indication of silicosis.

**11.1.10 Aspiration hazard****Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**11.1.11 Further toxicological information**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.



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Other information: By handling the product for many years no damage to health was observed.

### 12. Ecological information

#### 12.1 Toxicity

**Assessment:**

No expected damaging effects to aquatic organisms. According to current knowledge adverse effects on water purification plants are not expected.

**Product details:**

Result/Effect	Species/Test system	Source
LC <sub>50</sub> : > 10000mg/l	zebra fish (Danio rerio) (96 h)	literature
EC <sub>50</sub> : > 10000mg/l	Daphnia magna (24 h)	literature

#### 12.2 Persistence and degradability

**Assessment:**

The substance is degradable in abiotic processes.

#### 12.3 Bioaccumulative potential

**Assessment:**

No adverse effects expected.

#### 12.4 Mobility in soil

**Assessment:**

No adverse effects expected.

#### 12.5 Other adverse effects

none known

#### 12.6 Additional information

Insoluble in water.

### 13. Disposal considerations

#### 13.1 Product disposal

**Recommendation:**

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

#### 13.2 Packaging disposal

**Recommendation:**

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

### 14. Transport information

#### 14.1 US DOT & CANADA TDG SURFACE

Valuation ..... : Not regulated for transport

#### 14.2 Transport by sea IMDG-Code

Valuation ..... : Not regulated for transport

#### 14.3 Airtransport ICAO-TI/IATA-DGR

Valuation ..... : Not regulated for transport

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**15. Regulatory information****15.1 U.S. Federal regulations****TSCA inventory status and TSCA information:**

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory. This material is in compliance with TSCA under CAS Number 7631-86-9 (silica, amorphous).

**TSCA 12(b) Export Notification:**

This material does not contain any TSCA 12(b) regulated chemicals.

**CERCLA Regulated Chemicals:**

This material does not contain any CERCLA regulated chemicals.

**SARA 302 EHS Chemicals:**

This material does not contain any SARA extremely hazardous substances.

**SARA 311/312 Hazard Class:**

This product does not present any SARA 311/312 hazards.

**SARA 313 Chemicals:**

This material does not contain any SARA 313 chemicals above de minimus levels.

**HAPS (Hazardous Air Pollutants):**

This material does not contain any hazardous air pollutants.

**15.2 U.S. State regulations****California Proposition 65 Carcinogens:**

This material does not contain any chemicals known to the state of California to cause cancer.

**California Proposition 65 Reproductive Toxins:**

This material does not contain any chemicals known to the State of California to cause reproductive effects.

**Massachusetts Substance List:**

112945-52-5 Silica, amorphous, fumed

**New Jersey Right-to-Know Hazardous Substance List:**

112945-52-5 Silica, amorphous, fumed

**Pennsylvania Right-to-Know Hazardous Substance List:**

112945-52-5 Silica, amorphous, fumed

**15.3 Canadian regulations**

This product has been classified in accordance with the Hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**WHMIS Hazard Classes:**

None.

**15.4 Details of international registration status**

Relevant information about individual substance inventories, where available, is given below.

South Korea (Republic of Korea).....	<b>ECL</b> (Existing Chemicals List): This product is listed in, or complies with, the substance inventory.
Japan.....	<b>ENCS</b> (Handbook of Existing and New Chemical Substances): This product is listed in, or complies with, the substance inventory.
Australia .....	<b>AICS</b> (Australian Inventory of Chemical Substances): This product is listed in, or complies with, the substance inventory.
People's Republic of China.....	<b>IECSC</b> (Inventory of Existing Chemical Substances in China): This product is listed in, or complies with, the substance inventory.
Canada.....	<b>DSL</b> (Domestic Substance List): This product is listed in, or complies with, the substance inventory.
Philippines .....	<b>PICCS</b> (Philippine Inventory of Chemicals and Chemical Substances): This product is listed in, or complies with, the substance inventory.



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United States of America (USA) .....: **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):  
This product is listed in, or complies with, the substance inventory.

European Economic Area (EEA) .....: **REACH** (Regulation (EC) No 1907/2006):  
REACH registration number: 01-2119379499-16-0001  
General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

## 16. Other information

### 16.1 Additional information:

This Safety Data Sheet (SDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR. This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee expressed or implied, is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents. This SDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

Vertical lines in the left-hand margin indicate changes compared with the previous version.

All deliveries are subject to the WACKER SILICONES Health Care Policy, which is available at [www.wacker.com](http://www.wacker.com).

### 16.2 Glossary of Terms:

ACGIH - American Conference of Governmental Industrial Hygienists	ppm - Parts per Million
DOT - Department of Transportation	SARA - Superfund Amendments and Reauthorization Act
hPa - Hectopascals	STEL - Short Term Exposure Limit
mPa*s - Milli Pascal-Seconds	TSCA - Toxic Substances Control Act
OSHA - Occupational Safety and Health Administration	TWA - Time Weighted Average
PEL - Permissible Exposure Limit	WHMIS - Canadian Workplace Hazardous Materials Identification System

Flash point determination methods	Common name
ASTM D56.....	Tagliabue (Tag) closed cup
ASTM D92, DIN 51376, ISO 2592.....	Cleveland open cup
ASTM D93, DIN 51758, ISO 2719.....	Pensky-Martens closed cup
ASTM D3278, DIN 55680, ISO 3679.....	Setaflash or Rapid closed cup
DIN 51755.....	Abel-Pensky closed cup

### 16.3 Conversion table:

Pressure:.....: 1 hPa \* 0.75 = 1 mm Hg = 1 torr; 1 bar = 1000 hPa  
 Viscosity:.....: 1 mPa\*s = 1 centipoise (cP)