

WACKER**Safety Data Sheet**

Material: 60081388

**HDK® N20
HYDROPHILIC PYROGENIC SILICA**

Version: 2.3 (US)

Date of print: 07/31/2018

Date of last alteration: 07/27/2018

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 Chemicals (China) Co., Ltd.
Bldg. 3, 1535 Hongmei Road
Caohejing Hi-Tech Park
Shanghai 200233
China

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
	Pyrogenic micro-dispersed silica, synthetic X-ray amorphous silicon dioxide (SiO ₂)

3.2 Information on ingredients:

This material does not contain any ingredients above the permitted limit(s).

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. Specific chemical identities and/or exact percentage (concentration) of the composition may have been withheld as a trade secret.



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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	
Upper explosion limit (UEL).....	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:

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid dust formation. Do not breathe dust. Avoid contact with eyes and skin.

HAZWOPER PPE Level: D

6.2 Containment:

Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Cover any spilled material in accordance with regulations to prevent dispersal by wind. Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground.

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.

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6.3 Methods for cleaning up

Damp down dust and fill into containers. Avoid dust formation.

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

Avoid dust formation. Observe information in section 8.

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:**

Observe local/state/federal regulations.

Advice for storage of incompatible materials:

Observe local/state/federal regulations.

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 ³	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 SiO₂ in formula (80 mg/m³ + % SiO₂) 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/m³) 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.



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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.

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) at 1013 hPa	(-)
Boiling point / boiling range	not applicable	
Flash point.....	not applicable	
Ignition temperature	not applicable	
Lower explosion limit (LEL)	not applicable	
Upper explosion limit (UEL).....	not applicable	
Vapour pressure.....	not applicable	
Density.....	approx. 2.2 g/cm ³ at 20 °C (68 °F)	(DIN 51757)
Bulk density.....	20 - 130 kg/m ³	(-)
Water solubility / miscibility.....	virtually insoluble at 20 °C (68 °F)	
pH-Value	3.8 - 4.3	(DIN EN ISO 787-9)
Viscosity (dynamic)	not applicable	

9.3 Further information

Odour limit.....: no data available
 VOC

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

disturbed dust

Dust explosion class: No danger of dust explosion according to German VDI 2263.

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

moisture .

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

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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 ₅₀ : > 5000 mg/kg	rat	literature
dermal	LD ₅₀ : > 5000 mg/kg	rabbit	literature
by inhalation (dust)	LC ₅₀ : > 0.139 mg/l; 4 h At the technically highest possible concentration no mortality in animal test.	rat	literature

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:**

During several years of handling this material, there were no indications of a skin-sensitizing potential.

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;

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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.

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 ₅₀ : > 10000 mg/l	zebra fish (Danio rerio) (96 h)	literature
EC ₅₀ : > 10000 mg/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.



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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 Air transport ICAO-TI/IATA-DGR

Valuation: Not regulated for transport

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 reportable amounts of any TSCA 12(b) listed 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 (Safe Drinking Water and Toxic Enforcement Act of 1986):

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

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 Details of international registration status

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

- South Korea (Republic of Korea): **ECL** (Existing Chemicals List):
This product is listed in, or complies with, the substance inventory.
- Japan: **ENCS** (Handbook of Existing and New Chemical Substances):
This product is listed in, or complies with, the substance inventory.
- Australia: **AICS** (Australian Inventory of Chemical Substances):
This product is listed in, or complies with, the substance inventory.
- People's Republic of China: **IECSC** (Inventory of Existing Chemical Substances in China):
This product is listed in, or complies with, the substance inventory.



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- Canada : **DSL** (Domestic Substance List):
This product is listed in, or complies with, the substance inventory.
- Philippines..... : **PICCS** (Philippine Inventory of Chemicals and Chemical Substances):
This product is listed in, or complies with, the substance inventory.
- United States of America (USA)..... : **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):
All components of this product are listed as active or are in compliance with the substance inventory.
- Taiwan (Republic of China)..... : **TCSI** (Taiwan Chemical Substance Inventory):
This product is listed in, or complies with, the substance inventory. General note:
The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each ingredient). It is the duty of the importing/manufacturing legal entity to take care of this obligation.
- European Economic Area (EEA)..... : **REACH** (Regulation (EC) No 1907/2006):
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 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.

16.2 Glossary of Terms:

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

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