

# Material Safety Data Sheet

## KIRKSIDE PRODUCTS

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Infosafe No. AE1Q2 Issue Date : April 2005 ISSUED by KIRKSIDE

Product Name : WACKER HDK (All Grades)

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** WACKER HDK (All Grades)  
**Company Name** Kirkside Products  
**Address** 21 Roberts St. Osborne Park 6017 Western Australia  
**Emergency TeL** 1800 033 111 Aust  
**Telephone/Fax Number** Tel: 61 8 9242 2990 Fax: 61 8 9242 4867  
**Email** [kirkside@wt.com.au](mailto:kirkside@wt.com.au)  
**Recommended Use** Absorbent for chemicals; as an inert filler; texturizing agent in paint, coatings and cement; viscosity control agent; as an extender for resins.  
  
NOTE: If products are used in pharmaceuticals, cosmetics, foods or in applications with food contact, the products have to comply with laws and regulations pertaining to these applications.

Other Names	Name	Product Code
	HYDROPHOBIC HDK:	
	0	
	Wacker HDK H15 10kg	353280
	Wacker HDK H18 10kg	353388
	HYDROPHILIC HDK:	
	Wacker HDK N20 10kg	338992
	Wacker HDK N20 5kg	354554
	0	
	Wacker HDK T40 10kg	353442
	0	
	0	
	Silica, Amorphous, Synthetic X-ray, Dispersed (Crystalline Free).	
	0	
	0	

### 2. HAZARDS IDENTIFICATION

**Hazard Classification** Not a Dangerous Good, Workplace Hazardous Substance nor Scheduled Poison.

**Other Information** Synthetically generated amorphous silica have a reversible inflammation hazard only with no indication of silicosis. Static buildup whilst being handled may act as an ignition source.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Moisture Loss after 2hrs at 105°C	7732-18-5	<1.5%
	Moisture Loss after 2hrs at 105°C	7732-18-5	<0.6%

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Ingredients	Name	CAS	Proportion
	Ignition Loss after 2hrs at 1000°C		
	Carbon Content		4.5 %
	0		
	HDK N20, HDK T30 & HDK T40: (Hydrophilic)		
	HDK H18: (Hydrophobic)		
	Organosilane Surface Coating *	CAS-ON-AICS	<0.2%
	0		
	Ignition Loss after 2hrs at 1000°C	-	<1.5%
	0		
	HDK 15: (Hydrophobic)		
	X-ray Amorphous Silicon Dioxide, Synthetic (Crystalline Free)	68611-44-9	>98% #
	Organosilane Surface Coating *	CAS-ON-AICS	<0.2%
	Moisture Loss after 2hrs at 105°C	7732-18-5	<0.6%
	Ignition Loss after 2hrs at 1000°C	-	<2.0%
	Carbon Content	-	0.8%
	X-ray Amorphous Silica, Synthetic, Fumed (Crystalline Free)	112945-52-5	<98%
Other Information	# Of the dried material.		
	* Organosilane surface coating is used to make the 'non-wettable' hydrophobic forms of WACKER HDK.		

### 4. FIRST AID MEASURES

Inhalation	Remove victim to fresh air.
Ingestion	Rinse mouth thoroughly with water immediately. Give water to drink. No further action needed, as Wacker HDK will pass safely through the body.
Skin	Remove dust, take care not to unnecessarily inhale the dust.
Eye	Nuisance dust. Wash with copious amounts of water.
First Aid Facilities	Normal washroom facilities, water, soap, eye wash and safety shower.
Advice to Doctor	Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Fire Fighting Measures	EXTINGUISHING MEDIA: Any, Wacker HDK does not burn. Select media appropriate to the surrounding area. SPECIAL CONCERN: Electrostatic accumulation and discharge during transport and processing is possible. Earth all equipment and keep away from flammable atmospheres.
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Decomposition Temp. >150°C for the organosilane coating.

### 6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	SPILLAGE: Wear protective equipment, avoid dust inhalation. Damp down dust. Collect and re-bag in a clean labelled bag, for reuse or disposal. Vacuuming using certified equipment is recommended to prevent the generation of airborne dusts. Take care not to generate a static discharge. Otherwise dampen down the dust with water.
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### 7. HANDLING AND STORAGE

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Product Name : WACKER HDK (All Grades)

**Handling and Storage** Store in a dry place. Keep containers closed at all times.  
Electrostatic discharge is possible during transport and processing.  
Take precautionary measures against static discharges. Ensure all parts of equipment are well earthed. Use inert gas when working with combustible and explosive liquids. Avoid dust deposits and remove any dust regularly.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**National Exposure Standards** Amorphous Fumed Silica 2 mg/m<sup>3</sup> TWA  
(respirable dust)

**Engineering Controls** Avoid generating and inhaling dusts.  
Use with local exhaust ventilation or while wearing appropriate respirator.  
Ground and bond all equipment to stop buildup of static charges.

**Personal Protective Equipment** Avoid skin and eye contact, and inhaling the dust.  
EYE: Wear protective goggles or safety glasses with side shields.  
SKIN: Wear rubber gloves and consider using skin cream.  
INHALATION: Wear a dust respirator meeting AS1715/1716, when dust clouds formed may cause a nuisance dust hazard and/or ventilation is not adequate.  
CLOTHING: Wear antistatic working shoes.  
•  
Always wash hands before smoking, eating, drinking or using the toilet.  
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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form** Solid

**Appearance** White coloured, micro- or highly-dispersed, free flowing powder, with no odour.  
>150°C for the organosilane coating.

**Decomposition Temperature** Fusion Point: 1700°C

**Melting Point** Not available

**Boiling Point** 2.2 approx.

**Specific Gravity** 3.6-6.8 (4% aqueous slurry)

**pH Value** Nil at 20°C

**Vapour Pressure** Not applicable

**Vapour Density (Air=1)** <1.5% (moisture loss 2 hrs at 105°C)

**Volatile Component** Not applicable

**Flash Point** Not combustible. Will not burn or melt.

**Flammability** Static buildup may act as an ignition source.  
Not applicable

**Auto-Ignition Temperature** Not applicable

**Flammable Limits - Lower** Not applicable

**Explosion Properties** Not applicable

**Molecular Weight** 60.08  
SiO<sub>2</sub> x-ray amorphous

**Other Information** SOLUBILITY: Insoluble in water.  
BULK DENSITY: Loose Powder (tapped) - 20 kg/m<sup>3</sup>  
to Compressed Powder - 130 kg/m<sup>3</sup>



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Product Name : WACKER HDK (All Grades)

### Stability and Reactivity

Stable to 1600°C (however organosilane coating decomposes at >150°C).  
CONDITIONS TO AVOID: Dust cloud formation.  
INCOMPATIBLE MATERIALS: None known.  
HAZARDOUS DECOMPOSITION PRODUCTS: A respirable amorphous silica dust cloud may be formed.  
HAZARDOUS POLYMERISATION: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Toxicology Information

Acute Oral Toxicity LD50 (rat) : >5000 mg/kg (Limit Test)  
Acute Skin Toxicity LD50 (rat) : >5000 mg/kg (Limit Test)  
Acute Inhal'n Toxicity LC50 (rat): >139 mg/m3/4hrs (Limit Test)  
NOTE: The Acute Inhalation Test - Performed at the technically highest possible concentration with no mortality in the animals.

CHRONIC RESPIRATORY EXPOSURE - Changes in the respiratory organs observed in animal experiments (inflammatory processes) were reversible with no indication of silicosis.

CARCINOGENICITY: IARC has concluded that synthetic, amorphous silica has inadequate evidence in experimental animals and very little evidence in humans, for carcinogenicity. IARC Monographs Vol. 68 - 1997.

MUTAGENICITY: According to experience - non-mutagenic.

EXPERIENCE IN MAN: After prolonged contact no damage was observed.

### Inhalation

Silica dust is a mechanical irritant.

### Ingestion

No effects known. May cause constipation as the powder will absorb liquid.

### Skin

May cause drying of the skin. No other effects known.

### Eye

May cause mechanical irritation. No other effects known.

### Chronic Effects

Long term exposure to respirable amorphous silica can lead to reduced lung function and silicosis (a progressive degenerative scarring of the lung tissue). Shortness of breath and wheezing may result from silicosis.

NOTE: This synthetically generated amorphous silica does cause the respiratory organs to become inflamed, but is reversible, and there is no indication of silicosis.

## 12. ECOLOGICAL INFORMATION

### Ecological Information

Not expected to be an environmental hazard. Insoluble in water. There is no likelihood of a damaging effect on water organisms. No adverse effects on water purification plants. Can be mechanically removed from waste water.

Acute Aquatic Toxicity:  
LC50 (Zebra Fish, 96hrs) : >10000 mg/L  
EC50 (Daphnia Magna, 24hrs): >10000 mg/L

## 13. DISPOSAL CONSIDERATIONS

### Disposal

DISPOSAL: In accordance with Local, State & Federal EPA waste regulations.

### Considerations

Advise of the amorphous silica inhalation hazard. Reuse or recycle where possible. It may be buried as landfill in an approved facility. If solidified so that dust formation is not possible, it may be buried with domestic landfill.

## 14. TRANSPORT INFORMATION

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**Transport Information** Not defined as a Dangerous Good: by the Australian Code for the Transport of Dangerous Goods by Road & Rail; by the IATA Air Transport Dangerous Goods Regulations; or by the IMDG (International Maritime Dangerous Goods) Code.

**Storage and Transport** Not classified as dangerous.

### 15. REGULATORY INFORMATION

**Poisons Schedule** Not Scheduled

**Packaging & Labelling** Not a Dangerous Good, Workplace Hazardous Substance nor Scheduled Poison.

S22 Do not breathe dust.

**AICS (Australia)** All ingredients are on the Australian Inventory of Chemical Substances.

**Other Information** PRECAUTIONARY DUTIES IN WACKER HDK PRODUCTS  
For medical applications ISO 10993 'Biological Evaluation of Medical Devices' has to be followed. The Customers must be informed that they are required to follow ISO 10993.

These products are not recommended:

- for medical applications with physical contact
- for medical injection.

If products are used in pharmaceuticals, cosmetics, foods or in applications with food contact, the products have to comply with laws and regulations pertaining to these applications.

The choice, processing and application of these products are the sole and exclusive responsibility of the customer.

### 16. OTHER INFORMATION

**Contact Person/Point** For EMERGENCIES ONLY Contact : 1800 033 111 (All Hours Australia)  
0800 734 607 (All Hours New Zealand)

Kirkside Products: 61 8 9242 2990 (Perth)

NOTE: This MSDS summarises our best knowledge of the health and safety hazard information on the product, and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company, or in the event of an emergency, the Emergency Response number above.

Our responsibility for products sold is subject to our standard terms and conditions, a copy is sent to our customers and is also available on request.

#### User Codes

Authorised by

Prepared by

#### User Code

D.Latta

JS0504-C

**Other Information** Key Changes: Converted to a 16 Part MSDS.

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...End Of MSDS...

### 14. TRANSPORT INFORMATION