

## TEQGEL HD

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### MATERIAL SAFETY DATA SHEET

#### 1. Identification of the substance and of the company.

##### 1.1. Identification of the substance.

Commercial product name: **TEQGEL HD**

##### 1.2. Application.

Base for the drilling fluid in Horizontal Directional Drilling and Microtunneling

##### 1.3. Company.

**HEADS Sp. z o.o.**  
ul. Piastowska 21, 30-065 Kraków  
tel. : +48 12 269 05 68  
fax : +48 12 269 25 88

##### 1.4. Emergency information: +48 12 2690568.

#### 2. Hazards identification.

##### Classification of the substance or mixture

Threats	Classification compatible with directive 1999/45/EC
from physical features :	unclassified
to human:	unclassified
to environment :	unclassified

##### Marking elements:

Symbol, warnings sign: NOT APPLICABLE

Hazards statements: NOT APPLICABLE

Phrases of conditions for safe use: NOT APPLICABLE

##### Other hazards:

Avoid inhalation of product dust, non toxic product. Product forms slippery surface when combined with water.

#### 3. Composition/ Information of ingredients.

Sodium bentonite. Mineral origin product.

Substance	CAS-Number	Percentage	Classification compatible with Directive 67/548/EWG		Classification compatible with Regulation nr 1272/2008 (CLP)	
			Threats symbol	Phrase R	Threats class	Phrase H
Bentonite	1302-78-9	98-99%	-	-	-	-
Silica, crystalline, Cristobalite	14808-60-7	1-2%	Xn	R48/20	STOT RE 2	H373

The Full Text for all R-Phrases are Displayed in Section 16

#### 4. First aid measures.

##### Inhalation:

Move the exposed person to fresh air at once. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues

##### Skin:

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing..

##### Eyes:

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

##### Ingestion:

Immediately give a couple of glasses of water or milk, provided the victim is fully conscious. Get medical attention if any discomfort continues.

##### Medical advice:

Seek medical advice if in discomfort.

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**TEQGEL HD**

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**5. Fire-Fighting measures.****Extinguishing media:**

Water spray, dry powder, foam.

**Extinguishing media to avoid:**

Not known

**Special exposure hazard in fire:**

Product forms slippery surface when combined with water.

**Special protective equipment for fire fighters:**

None.

**6. Accidental release.****Personal precautions:**

Do not breathe dust. Avoid creating dust and aerosols. Local exhaust ventilation required. Use appropriate protective equipment (see MSDS Section 8).

**Environmental precautions :**

Mineral origin product. Avoid drop into the environment.

**Cleaning methods /disposal :**

Take up uncontaminated material and pass for further processing or mechanical sweep-up of material and dispose of in accordance with local standards.

**Additional advice:**

Avoid dust formation

**7. Handling and storage.****Handling:**

Avoid creating dust and aerosols. Local exhaust ventilation required. Make up air should be supplied to balance air that is removed by local or general exhaust ventilation. Ventilate low lying areas such as sumps or pits where dense dust may collect. Avoid skin and eye contact. Wash hands before eating and working. Do not smoke.

**Storage:**

Keep container tightly closed and in dry area. No restrictions on common storage.

**8. Personal protection.****EXPOSURE GUIDELINES**

Substance	Std.	TWA- 8 hrs	STEL
QUARTZ, CRYSTALLINE SILICA	WEL	4 mg/m <sup>3</sup> (Total dust)	1mg/m <sup>3</sup> (Respirable dust)

WEL = Workplace Exposure Limit.

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

Dust mask in case of inadequate ventilation.

**Hand protection**

Protective gloves.

**Eye protection**

Safety goggles.

**Skin and body protection**

No Special requirements, regular uniform.

**9. Physical and Chemicals properties.**

- form: **powder**
- colour: **gray**
- odour: **odourless**
- pH: **9 -10 in water solution @ 30 g/l ( 20°C)**
- boiling temp: **n.a.**
- melting temp: **over 1000 °C**
- flash point: **n.a.**
- ignition temperature: **n.a**
- auto flammability: **non-inflammable.**
- explosive properties: **n.a.**
- vapour pressure: **n.a.**
- bulk density: **n.a.**
- water solubility: **insoluble**
- viscosity: **see technical data**
- fire number: **n.a**
- oxidizing properties: **n.a**

## TEQGEL HD

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### 10. Stability and reactivity.

**Reactivity:**

Product is not reactive.

**Stability:**

Product stable in recommended storage conditions. Product is hygroscopic.

**Materials to avoid:**

None known.

**Conditions to avoid:**

Avoid water contact during storage.

**Information about decomposition:**

No decompositions if stored and applied as directed.

### 11. Toxicological information.

**Acute oral toxicity:**

Crystalline silica: LD50: 500mg/kg (orally, rat)

Bentonite. LD50: 35mg/kg (intravenously, rat)

**Skin:**

May be slightly irritating to skin.

**Eyes:**

May be slightly irritating to eyes.

**Inhalation:**

May cause irritation to the respiratory system if the dust is inhaled.

**Ingestion:**

Low toxic product.

### 12. Ecological information.

**Toxicity**

**Water environment / solid / Land environment:**

Bentonite: LC50: 19000mg/l (96h, fish, *Oncorhynchus mykiss*)

**Degradability:** Mineral origin product. The organic part of the product is not biologically degradable.

**Bioaccumulative:** Bioconcentration factor (BCF): no data.

### 13. Disposal considerations.

**Recommendation:**

Do not remove into drains. Dispose in accordance with local standards. Contact waste disposal services.

**Contaminated packaging:**

Can be re-used after emptying and cleaning

### 14. Transport information.

**Land transport:** Not classified as dangerous in the meaning of transport regulations.

**Sea transport:** Not classified as dangerous in the meaning of transport regulations.

**Air transport:** Not classified as dangerous in the meaning of transport regulations.

### 15. Regulatory information.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC also amending Directives (EC) no 1907/2006

Act of 25th February 2011 on chemical substances and mixture (Polish Official Journal of Laws 2011, No 63 item 322).

Act of 24th August 1991, on fire protection (Polish Official Journal of Laws 2009, No 178 item 1380)

Act of 28th October 2002 on transportation dangerous materials (Polish Official Journal 2002, No 199 item 1671).

Decree of the Minister of Health of 20th April 2012 on labeling of hazardous substances and mixtures, and certain mixtures (Polish Official Journal of Laws from 2012 No. 0 item 445).

Decree of the Minister of Health of 30th December 2004 on the criteria and ways of classification of chemical substances and preparations (Polish Official Journal of Laws from 2005 No. 11 item 86).

Decree of the Minister of Health of 2th February 2011 in the test and measurement of harmful factors in the work environment (Polish Official Journal of Laws from 2011 No. 33 item 166).

Decree of the Minister of Labour and Social Policy of 26th September 1997 on general rules health and safety (Polish Official. Journal of Laws 2008 no. 108 item 690).

Decree of the Minister of Economy of 21th December 2005 on the basic requirements for plant protection individual (Polish Official. Journal of Laws 2005 no. 259 item 2173).

## TEQGEL HD

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### 16. Other information.

#### Abbreviations and acronyms used in the safety data sheet:

N.A. = Not Applicable

N.D. = No Data available

LC50 Lethal Concentration of the chemical that kills 50% of the test animals.

LD50 Lethal Dose is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals

TWA time-weighted average

STEL short-term exposure limits

#### RISK PHRASES

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed

H373: May cause damage to organs through prolonged or repeated exposure

#### SAFETY PHRASES

Not classified

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