

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

<b>Trade name or designation of the mixture</b>	20 MESH DMFC
<b>Registration number</b>	-
<b>Synonyms</b>	Dry Milled Fireclay
<b>Brand Code</b>	5010
<b>Issue date</b>	15-February-2017
<b>Version number</b>	01

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Identified uses</b>	For Industrial Use Only
<b>Uses advised against</b>	Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

<b>Company name</b>	HarbisonWalker International		
<b>Address</b>	1305 Cherrington Parkway, Suite 100 Moon Township, PA 15108, USA United States		
<b>Division</b>			
<b>Telephone</b>	General Phone:	412-375-6600	
	CHEMTREC 24 HOUR	1-800-424-9300	
	EMERGENCY #		
<b>e-mail</b>	sds@thinkHWI.com		
<b>Contact person</b>	HWI USA		

**1.4. Emergency telephone number** Not available.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended

**Hazard summary** Exposure to powder or dusts may be irritating to eyes, nose and throat. Prolonged exposure may cause chronic effects.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

<b>Hazard pictograms</b>	None.
<b>Signal word</b>	None.
<b>Hazard statements</b>	The mixture does not meet the criteria for classification.

#### Precautionary statements

<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.

#### Supplemental label information

Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Overexposure to the respirable dust of crystalline silica (quartz or cristobalite, less than or equal to 5 microns in size) may lead to silicosis in humans, which is a progressive and irreversible lung disease. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

2.3. Other hazards None known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Clay	70 - < 80	1302-87-0	-	-	
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**Classification:** -

Other components below reportable levels 20 - < 30

#### List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.

DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

## SECTION 4: First aid measures

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

### 4.2. Most important symptoms and effects, both acute and delayed

Dusts may irritate the respiratory tract, skin and eyes. Coughing.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

**General fire hazards** Not available.

### 5.1. Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media** Not available.

**5.2. Special hazards arising from the substance or mixture** Not available.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Not available.

**Special fire fighting procedures** Not available.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

Stop the flow of material, if this is without risk. Collect dust using a vacuum cleaner equipped with HEPA filter.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

### 6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not breathe dust. Avoid prolonged exposure. Practice good housekeeping.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	MAK	0,15 mg/m <sup>3</sup>	Respirable dust.

##### Belgium. Exposure Limit Values.

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.

##### Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,07 mg/m <sup>3</sup>	Respirable fraction.

##### Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	MAC	0,1 mg/m <sup>3</sup>

##### Czech Republic. OELs. Government Decree 361

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.

##### Denmark. Exposure Limit Values

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TLV	0,3 mg/m <sup>3</sup>	Total
		0,1 mg/m <sup>3</sup>	Respirable.

##### Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.

##### Finland. Workplace Exposure Limits

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,05 mg/m <sup>3</sup>	Respirable.

**France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984**

<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	VME	0,1 mg/m <sup>3</sup>	Respirable fraction.
<b>Hungary. OELs. Joint Decree on Chemical Safety of Workplaces</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,15 mg/m <sup>3</sup>	Respirable.
<b>Iceland. OELs. Regulation 154/1999 on occupational exposure limits</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,3 mg/m <sup>3</sup>	Total dust.
		0,1 mg/m <sup>3</sup>	Respirable dust.
<b>Ireland. Occupational Exposure Limits</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.
<b>Italy. Occupational Exposure Limits</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,025 mg/m <sup>3</sup>	Respirable fraction.
<b>Lithuania. OELs. Limit Values for Chemical Substances, General Requirements</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable fraction.
<b>Netherlands. OELs (binding)</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,075 mg/m <sup>3</sup>	Respirable dust.
<b>Norway. Administrative Norms for Contaminants in the Workplace</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TLV	0,3 mg/m <sup>3</sup>	Total dust.
		0,1 mg/m <sup>3</sup>	Respirable dust.
<b>Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
		0,3 mg/m <sup>3</sup>	Respirable fraction.
<b>Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,025 mg/m <sup>3</sup>	Respirable fraction.
<b>Romania. OELs. Protection of workers from exposure to chemical agents at the workplace</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable fraction.
<b>Romania. OELs/CMRs. Protection of workers from exposure to carcinogen and mutagen agents. Hotarâre Nr. 1093 din 16 august 2006, Annex 3</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.
<b>Slovakia. OELs for carcinogens and mutagens. Regulation No. 46/2002 on carcinogenic and mutagenic substances</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable fraction.

**Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)**

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,15 mg/m <sup>3</sup>	Respirable fraction.

**Spain. Occupational Exposure Limits**

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,05 mg/m <sup>3</sup>	Respirable fraction.

**Sweden. Occupational Exposure Limit Values**

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,15 mg/m <sup>3</sup>	Respirable dust.

**UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value	Form
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	TWA	0,1 mg/m <sup>3</sup>	Respirable.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures**

Follow standard monitoring procedures.

**Derived no effect levels (DNELs)**

Not available.

**Predicted no effect concentrations (PNECs)**

Not available.

**Exposure guidelines**

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

**8.2. Exposure controls**

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

**Individual protection measures, such as personal protective equipment**

**General information**

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Skin protection**

**- Hand protection**

Wear appropriate chemical resistant gloves.

**- Other**

Wear suitable protective clothing.

**Respiratory protection**

Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.



**Hygiene measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls**

Environmental manager must be informed of all major releases.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Solid. Powder.
<b>Colour</b>	Not available.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.

#### Upper/lower flammability or explosive limits

<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.

**Vapour pressure** Not available.

**Vapour density** Not available.

**Relative density** Not available.

#### Solubility(ies)

**Solubility (water)** Not available.

**Solubility (other)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not available.

**Oxidising properties** Not available.

**9.2. Other information** No relevant additional information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport

**10.2. Chemical stability** Material is stable under normal conditions.

**10.3. Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid** Contact with incompatible materials.

**10.5. Incompatible materials** Powerful oxidizers. Chlorine.  
Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.

**10.6. Hazardous decomposition products** No hazardous decomposition products are known.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects

#### Information on likely routes of exposure

**Inhalation** Dust may irritate respiratory system. Prolonged inhalation may be harmful

**Skin contact** Dust or powder may irritate the skin.

**Eye contact** Dust may irritate the eyes.

**Ingestion** May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

**Symptoms** Dusts may irritate the respiratory tract, skin and eyes. Coughing

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Serious eye damage/eye irritation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible
<b>Skin sensitisation</b>	Due to partial or complete lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Carcinogenicity</b>	In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Risk of cancer cannot be excluded with prolonged exposure

#### **Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

<b>Reproductive toxicity</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to partial or complete lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to partial or complete lack of data the classification is not possible
<b>Mixture versus substance information</b>	No information available.
<b>Other information</b>	This product has no known adverse effect on human health.

### SECTION 12: Ecological information

<b>12.1. Toxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>12.2. Persistence and degradability</b>	No data is available on the degradability of this product.
<b>12.3. Bioaccumulative potential</b>	No data available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	No data available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not available.
<b>12.6. Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>EU waste code</b>	Not available.

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use**

Not regulated.

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws  
This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006

#### National regulations

Follow national regulation for work with chemical agents.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

<b>List of abbreviations</b>	Not available.
<b>References</b>	Not available.
<b>Information on evaluation method leading to the classification of mixture</b>	Not available.
<b>Full text of any H-statements not written out in full under Sections 2 to 15</b>	None.
<b>Revision information</b>	Product and Company Identification: Synonyms Composition / Information on Ingredients: Disclosure Overrides
<b>Training information</b>	Not available.
<b>Disclaimer</b>	This information is based on our present knowledge on creation date. However, this shall no constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.