

SAFETY DATA SHEET

1. Identification

Product identifier	H-W LT WT CASTABLE 30
Other means of identification	
Brand Code	1533
Recommended use	For Industrial Use Only
Recommended restrictions	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.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer		
Company name	HarbisonWalker Internationa	l
Address	1305 Cherrington Parkway, S	Suite 100
	Moon Township, Pennsylvan	ia 15108 US
Telephone	General Phone:	412-375-6600
Website	www.thinkHWI.com	
Emergency phone number	CHEMTREC 24 HOUR EMERGENCY #	1-800-424-9300

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Carcinogenicity	Category 1A
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May cause cancer. Causes damage to organs through prolonged or repeated exposure.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If exposed or concerned: Get medical advice/attention.
Storage	Not available.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%	
Kyanite		1302-76-7	30 - 50	
Mullite		1302-93-8	30 - 50	

Chemical name	Common name and synonyms	CAS number	%
Cement, Alumina, Chemicals		65997-16-2	10 - 30
Cristobalite		14464-46-1	10 - 30
Expanded Perlite		93763-70-3	2.5 - 10
Quartz (SiO2)		14808-60-7	2.5 - 10
Titanium Dioxide		13463-67-7	2.5 - 10
Other components below reportable le	evels		2.5 - 10

Crystalline silica may be present at low concentrations; most of this is encapsulated in the coarse aggregate or as part of the clays or sands.

4. 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	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
5. Fire-fighting measures	

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Not available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is

	airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

14464-46-1)

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for A	ir Contaminants (29 CFR 1910.	1000)	
Components	Туре	Value	Form
Cristobalite (CAS	PEL	0.05 mg/m3	

US, OSHA Table 7-1 Limits for Air Contaminants (29 CFR 1910,1000)

	Туре	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	PEL	0.05 mg/m3	
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
US. OSHA Table Z-3 (29 CF Components	FR 1910.1000) Type	Value	Form
Cristobalite (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable.
14404-40-1)		1.2 mppcf	Respirable.
Expanded Perlite (CAS 93763-70-3)	TWA	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
14000-00-7)		2.4 mppcf	Respirable.
Titanium Dioxide (CAS 13463-67-7)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
US. ACGIH Threshold Limit Components	t Values Type	Value	Form
Cristobalite (CAS	TWA	0.025 mg/m3	Respirable fraction.
14464-46-1) Kyanite (CAS 1302-76-7)	TWA	1 mg/m3	Respirable fraction.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	Respirable fraction.
Quartz (SiO2) (CAS	TWA	0.025 mg/m3	Respirable fraction.
14808-60-7) Titanium Dioxide (CAS	TWA	10 mg/m3	
13463-67-7)		To hig/his	
US. NIOSH: Pocket Guide t			_
US. NIOSH: Pocket Guide t Components	to Chemical Hazards Type	Value	Form
		Value 5 mg/m3	Form Respirable.
Components Expanded Perlite (CAS 93763-70-3)	Type TWA	5 mg/m3 10 mg/m3	Respirable. Total
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS	Туре	5 mg/m3	Respirable.
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7)	Type TWA	5 mg/m3 10 mg/m3 0.05 mg/m3	Respirable. Total
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisa	Respirable. Total Respirable dust. spirable crystalline silica
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values posure guidelines	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisa be monitored and controlled. air changes per hour) should b plicable, use process enclosur in airborne levels below recon	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values hosure guidelines	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O and respirable crystalline silica should Good general ventilation (typically 10 a should be matched to conditions. If app or other engineering controls to mainta	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisat be monitored and controlled. air changes per hour) should b blicable, use process enclosur in airborne levels below recon hed, maintain airborne levels t nt	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If o an acceptable level.
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values bosure guidelines propriate engineering trols vidual protection measures Eye/face protection Skin protection	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O and respirable crystalline silica should Good general ventilation (typically 10 a should be matched to conditions. If ap or other engineering controls to mainta exposure limits have not been establis s, such as personal protective equipme If contact is likely, safety glasses with s	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisat be monitored and controlled. air changes per hour) should b bolicable, use process enclosur in airborne levels below recon hed, maintain airborne levels t nt side shields are recommended	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If o an acceptable level.
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values posure guidelines propriate engineering trols vidual protection measures Eye/face protection Skin protection Hand protection	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O and respirable crystalline silica should Good general ventilation (typically 10 a should be matched to conditions. If app or other engineering controls to mainta exposure limits have not been establis s, such as personal protective equipme If contact is likely, safety glasses with s Wear appropriate chemical resistant glasses	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisat be monitored and controlled. air changes per hour) should be plicable, use process enclosur- in airborne levels below recon hed, maintain airborne levels t nt side shields are recommended oves.	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If o an acceptable level.
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values posure guidelines propriate engineering trols vidual protection measures Eye/face protection Kin protection Hand protection Other	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O and respirable crystalline silica should Good general ventilation (typically 10 a should be matched to conditions. If app or other engineering controls to mainta exposure limits have not been establis s, such as personal protective equipme If contact is likely, safety glasses with s Wear appropriate chemical resistant gl Use of an impervious apron is recomm	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisal be monitored and controlled. air changes per hour) should be policable, use process enclosur in airborne levels below recom hed, maintain airborne levels t nt side shields are recommended oves. mended.	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If o an acceptable level.
Components Expanded Perlite (CAS 93763-70-3) Quartz (SiO2) (CAS 14808-60-7) logical limit values posure guidelines propriate engineering trols vidual protection measures Eye/face protection Skin protection Hand protection	Type TWA TWA No biological exposure limits noted for Occupational exposure to nuisance du should be monitored and controlled. O and respirable crystalline silica should Good general ventilation (typically 10 a should be matched to conditions. If app or other engineering controls to mainta exposure limits have not been establis s, such as personal protective equipme If contact is likely, safety glasses with s Wear appropriate chemical resistant glasses	5 mg/m3 10 mg/m3 0.05 mg/m3 the ingredient(s). st (total and respirable) and re ccupational exposure to nuisal be monitored and controlled. air changes per hour) should be plicable, use process enclosur- in airborne levels below recom- hed, maintain airborne levels to nt side shields are recommended oves. uended. tor if there is a risk of exposure	Respirable. Total Respirable dust. spirable crystalline silica nce dust (total and respirable e used. Ventilation rates es, local exhaust ventilation, mended exposure limits. If o an acceptable level.



General hygiene considerations

Observe any medical surveillance requirements. 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.

9. Physical and chemical properties

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Appearance	
Physical state	Solid.
Form	Solid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
10. Stability and reactivity	
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Information on likely routes of e	-	
Inhalation	Prolonged inhalation may be h	
Skin contact	No adverse effects due to skir	contact are expected.
Eye contact	Direct contact with eyes may o	cause temporary irritation.
Ingestion	Expected to be a low ingestion	n hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may o	cause temporary irritation.
Information on toxicological effe	ects	
Acute toxicity	Not known.	
Skin corrosion/irritation	Prolonged skin contact may ca	ause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may o	cause temporary irritation.
Respiratory or skin sensitization	ו	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to	o cause skin sensitization.
Germ cell mutagenicity	No data available to indicate p mutagenic or genotoxic.	roduct or any components present at greater than 0.1% are
Carcinogenicity	inhaled from occupational sou overall evaluation, IARC noted circumstances studied. Carcin crystalline silica or on external polymorphs." (IARC Monogra humans, Silica, silicates dust a 2003, SCOEL (the EU Scientii main effect in humans of the in sufficient information to conclu silicosis (and, apparently, not in the ceramic industry). Ther risk" (SCOEL SUM Doc 94-f protection against silicosis car occupational exposure limits.	al Agency for Research on Cancer) concluded that crystalline silica rces can cause lung cancer in humans. However in making the I that "carcinogenicity was not detected in all industrial ogenicity may be dependent on inherent characteristics of the factors affecting its biological activity or distribution of its phs on the evaluation of the carcinogenic risks of chemicals to and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June fic Committee on Occupational Exposure Limits) concluded that the halation of respirable crystalline silica dust is silicosis. "There is ide that the relative risk of lung cancer is increased in persons with in employees without silicosis exposed to silica dust in quarries and efore, preventing the onset of silicosis will also reduce the cancer inal, June 2003) According to the current state of the art, worker to be consistently assured by respecting the existing regulatory May cause cancer. Occupational exposure to respirable dust and buld be monitored and controlled.
IARC Monographs. Overall I	Evaluation of Carcinogenicity	
Cristobalite (CAS 14464- Quartz (SiO2) (CAS 1480 Titanium Dioxide (CAS 13 US. National Toxicology Pro	08-60-7)	1 Carcinogenic to humans. 1 Carcinogenic to humans. 2B Possibly carcinogenic to humans. ogens
Cristobalite (CAS 14464-		Known To Be Human Carcinogen.
		Reasonably Anticipated to be a Human Carcinogen.
Quartz (SiO2) (CAS 1480		Known To Be Human Carcinogen.
	ulated Substances (29 CFR 19	10.1001-1050)
Not regulated.	This product is not expected to	o cause reproductive or developmental effects.
Reproductive toxicity Developmental effects		cause reproductive of developmental effects.
Quartz (SiO2)		0
Developmental effects - Quartz (SiO2)	· EU category	0
Embryotoxicity Quartz (SiO2)		0
Reproductivity Quartz (SiO2)		0
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Causes damage to organs three	ough prolonged or repeated exposure.

Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be
	harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	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.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Hazardous waste code	Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All chemical substances in this product are listed on the TSCA chemical substance inventory where required.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Hazard categories

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No chemical

SARA 313 (TRI reporting) Not regulated.		
Other federal regulations		
Clean Air Act (CAA) Sectio	n 112 Hazardous Air Pollutants (HAPs) List	
Not regulated.		
Clean Air Act (CAA) Sectio Not regulated.	n 112(r) Accidental Release Prevention (40 CFR 68.130)	
Safe Drinking Water Act	Not regulated.	
(SDWA)	Not regulated.	
US state regulations	WARNING: This product contains a chemical known to the State of	California to cause cancer.
US - California Propos	ition 65 - CRT: Listed date/Carcinogenic substance	
Quartz (SiO2) (CAS		
Titanium Dioxide (C		
US. California. Candida subd. (a))	ate Chemicals List. Safer Consumer Products Regulations (Cal. Co	ode Regs, tit. 22, 69502.3,
Cristobalite (CAS 14	4464-46-1)	
Quartz (SiO2) (CAS	5 14808-60-7)	
Titanium Dioxide (C	AS 13463-67-7)	
International Inventories		
Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	05-29-2015
Version #	01
Disclaimer	This information is based on our present knowledge on creation date. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Revision information	Product and Company Identification: Product and Company Identification

No