SAFETY DATA SHEET



1. Identification

Product identifier GREENLITE DC

Other means of identification

Brand Code 807B

Recommended use For Industrial Use Only

Recommended restrictions Avoid dry cutting, blasting, or dust generation. 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 International

Address 1305 Cherrington Parkway, Suite 100

Moon Township, Pennsylvania 15108 US

Telephone General Phone: 412-375-6600

Website www.thinkHWI.com Emergency phone number Not available.

2. Hazard(s) identification

Classified hazards

This item is defined as an article per OSHA, REACH, and WHMIS and is therefore exempt from labeling. A Safety Data Sheet is available.

This item is not Classified as hazardous. However, individual customer processes (such as grinding, sawing, or blasting) may result in the formation of dust that may present health hazards. Wear protective gloves/protective clothing/eye protection.

Label elements

This item is defined as an article per OSHA, REACH, and WHMIS and is therefore exempt from labeling. A Safety Data Sheet is available.

This item is not Classified as hazardous. However, individual customer processes (such as grinding, sawing, or blasting) may result in the formation of dust that may present health hazards. Wear protective gloves/protective clothing/eye protection.

Hazard(s) not otherwise classified (HNOC)

This item is defined as an article per OSHA, REACH, and WHMIS and is therefore exempt from labeling. A Safety Data Sheet is available.

This item is not Classified as hazardous. However, individual customer processes (such as grinding, sawing, or blasting) may result in the formation of dust that may present health hazards. Wear protective gloves/protective clothing/eye protection.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Mullite		1302-93-8	20 - 40
Cement, Alumina, Chemicals		65997-16-2	10 - 25
Aluminium Oxide (Non-Fibro	ous)	1344-28-1	2.5 - 10
Amorphous Silica	Fumed Silica Silica, crystalline free	7631-86-9	2.5 - 10
Cristobalite		14464-46-1	2.5 - 10
Fumes, Silica		69012-64-2	2.5 - 10
Quartz (SiO2)		14808-60-7	2.5 - 10
Kaolin		1332-58-7	1 - 2.5
Titanium Dioxide		13463-67-7	1 - 2.5
Other components below reportable levels			20 - 40

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4. First-aid measures

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

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

Rinse with water. Get medical attention if irritation develops and persists. Eye contact

Rinse mouth. Get medical attention if symptoms occur. Ingestion Most important Direct contact with eyes may cause temporary irritation.

symptoms/effects, acute and delayed

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Use fire-extinguishing media appropriate for surrounding materials.

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. 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.

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

Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places

where dust is formed. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Cristobalite (CAS 14464-46-1)	PEL	0.05 mg/m3	Respirable dust.
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Quartz (SiO2) (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
US. OSHA Table Z-3 (29 CFR 1910.	1000)		
Components	Туре	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

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	Туре	Value	Form
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Amorphous Silica (CAS 7631-86-9)	TWA	0.8 mg/m3	
		20 mppcf	
Cristobalite (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
Fumes, Silica (CAS 69012-64-2)	TWA	0.8 mg/m3	
		20 mppcf	
Kaolin (CAS 1332-58-7)	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.
		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 Lim Components	it Values Type	Value	Form
Components Aluminium Oxide (Non-Fibrous) (CAS		Value 1 mg/m3	Form Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS	Туре		
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1)	Type TWA	1 mg/m3	Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7)	Type TWA	1 mg/m3 0.025 mg/m3	Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	Type TWA TWA	1 mg/m3 0.025 mg/m3 2 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS	Type TWA TWA TWA TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7)	Type TWA TWA TWA TWA TWA TWA TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS	Type TWA TWA TWA TWA TWA TWA TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide	Type TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide Components Amorphous Silica (CAS	Type TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide Components Amorphous Silica (CAS 7631-86-9) Cristobalite (CAS	Type TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3 Value 6 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide Components Amorphous Silica (CAS 7631-86-9) Cristobalite (CAS 14464-46-1) Fumes, Silica (CAS	Type TWA TWA TWA TWA TWA TWA TWA TW	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3 Value 6 mg/m3 0.05 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction.
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide Components Amorphous Silica (CAS 7631-86-9) Cristobalite (CAS 14464-46-1) Fumes, Silica (CAS 69012-64-2)	Type TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3 Value 6 mg/m3 0.05 mg/m3 6 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Form
Components Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1) Cristobalite (CAS 14464-46-1) Kaolin (CAS 1332-58-7) Mullite (CAS 1302-93-8) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7) US. NIOSH: Pocket Guide Components Amorphous Silica (CAS 7631-86-9) Cristobalite (CAS 14464-46-1) Fumes, Silica (CAS 69012-64-2)	Type TWA	1 mg/m3 0.025 mg/m3 2 mg/m3 1 mg/m3 0.025 mg/m3 10 mg/m3 Value 6 mg/m3 0.05 mg/m3 6 mg/m3 5 mg/m3	Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable fraction. Respirable dust.

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Exposure guidelinesOccupational exposure to nuisance dust (total and respirable) and respirable crystalline silica

should be monitored and controlled.

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.

Individual protection measures, such as 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.

exceeding the exposure limits.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.





General hygiene considerations

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

Appearance

Physical state Solid.

Form Brick or Cast Shape Solid.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling

range

Not available.

Flash point

Evaporation rate

Flammability (solid, gas)

Not available.

Not available.

Upper/lower flammability or explosive 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.
Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

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Other information

Explosive properties Not explosive. **Oxidizing properties** Not oxidizing.

10. Stability and reactivity

ReactivityThe 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

InhalationNo adverse effects due to inhalation are expected.Skin contactNo adverse effects due to skin contact are expected.Eye contactDirect contact with eyes may cause temporary irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not available.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity 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 guarries and

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. Not classifiable as to carcinogenicity to humans.

in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous Silica (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

Cristobalite (CAS 14464-46-1) 1 Carcinogenic to humans.

Fumes, Silica (CAS 69012-64-2) 3 Not classifiable as to carcinogenicity to humans.

Quartz (SiO2) (CAS 14808-60-7) 1 Carcinogenic to humans.

Titanium Dioxide (CAS 13463-67-7) 2B Possibly carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Cristobalite (CAS 14464-46-1) Cancer

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Quartz (SiO2) (CAS 14808-60-7) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen.

Known To Be Human Carcinogen. Quartz (SiO2) (CAS 14808-60-7)

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Developmental effects

Cristobalite (CAS 14464-46-1)

0 Quartz (SiO2)

Developmental effects - EU category

Quartz (SiO2) 0

Embryotoxicity

Quartz (SiO2) 0

Reproductivity

0 Quartz (SiO2)

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

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 any ingredients in the mixture.

Bioaccumulative potential No data available. Mobility in soil No data available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation Other adverse effects

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

This product, in its present state, when discarded or disposed of, is not a hazardous waste **Disposal instructions**

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.

Since this product is used in several industries, no Waste Code can be provided by the supplier. Hazardous waste code

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.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

the IBC Code

15. Regulatory information

US federal regulations This product is not known to be 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.

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CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Cristobalite (CAS 14464-46-1) Cancer Quartz (SiO2) (CAS 14808-60-7) Cancer Cristobalite (CAS 14464-46-1) lung effects Quartz (SiO2) (CAS 14808-60-7) lung effects

Cristobalite (CAS 14464-46-1) immune system effects immune system effects Quartz (SiO2) (CAS 14808-60-7)

Cristobalite (CAS 14464-46-1) kidney effects Quartz (SiO2) (CAS 14808-60-7) kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No (Exempt)

chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
Aluminium Oxide (Non-Fibrous)	1344-28-1	2.5 - 10	

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

US state regulations

California Proposition 65



WARNING: This product can expose you to chemicals including Quartz (SiO2): Quartz (SiO2); Quartz (SiO2),

which is known to the State of California to cause cancer. For more information go

to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (SiO2) (CAS 14808-60-7) Listed: October 1, 1988 Titanium Dioxide (CAS 13463-67-7) Listed: September 2, 2011

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Cristobalite (CAS 14464-46-1) Quartz (SiO2) (CAS 14808-60-7) Titanium Dioxide (CAS 13463-67-7)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
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)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes

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Country(s) or region Inventory name On inventory (yes/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

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

 Issue date
 05-23-2015

 Revision date
 01-05-2022

Version # 02

country(s).

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 informationThis document has undergone significant changes and should be reviewed in its entirety.

Material name: GREENLITE DC SDS US