SAFETY DATA SHEET



1. Identification

Product identifier SATANITE

Other means of identification

Brand Code 6106

Recommended use For Industrial Use Only

Users should be informed of the potential presence of respirable dust and respirable crystalline Recommended restrictions

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/Supplier information

Manufacturer

HarbisonWalker International Company name

1305 Cherrington Parkway, Suite 100 **Address**

Moon Township, Pennsylvania 15108 US

General Phone: Telephone 412-375-6600

www.thinkHWI.com Website

Emergency phone number CHEMTREC 24 HOUR 1-800-424-9300

EMERGENCY #

2. Hazard(s) identification

Not classified. Physical hazards

Health hazards Carcinogenicity Category 1A

Environmental hazards Not classified. **OSHA** defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May cause cancer.

Precautionary statement

Obtain special instructions before use. Do not handle until all safety precautions have been read Prevention

and understood. Wear protective gloves/protective clothing/eye protection.

Response If concerned: Get medical advice/attention.

Storage Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations. **Disposal**

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental 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.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Aluminium Oxide (Non-Fibrous)		1344-28-1	20 - 40
Mullite		1302-93-8	20 - 40

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Chemical name	Common name and synonyms	CAS number	%
Kyanite		1302-76-7	10 - 20
Amorphous Silica	SILICA, AMORPHOUS, FUMED SILICA (CRYSTALLINE FREE)	7631-86-9	2.5 - 10
Kaolin		1332-58-7	2.5 - 10
Kaolinite		1318-74-7	2.5 - 10
Quartz (SiO2)		14808-60-7	2.5 - 10
Diiron Trioxide		1309-37-1	1 - 2.5
Titanium Dioxide		13463-67-7	1 - 2.5
Cristobalite		14464-46-1	0.1 - 1
Other components below re	eportable levels		1 - 2.5

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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.

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 Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

treatment needed

General information If concerned: Get medical advice. Ensure that medical personnel are aware of the material(s)

involved, and take precautions to protect themselves.

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. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up **Environmental precautions**

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.

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. 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 formed. Do not breathe dust. Do not breathe dust. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

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8. Exposure controls/personal protection

Occupational exposure limits

Components	s for Air Contaminants (29 CFR 1910.1000) Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Diiron Trioxide (CAS 1309-37-1)	PEL	10 mg/m3	Fume.
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
US. OSHA Table Z-3 (29 C	FR 1910.1000)		
Components	Туре	Value	Form
Amorphous Silica (CAS 7631-86-9)	TWA	0.8 mg/m3	
		20 mppcf	
Cristobalite (CAS 14464-46-1)	TWA	0.15 mg/m3	Total dust.
		0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.
US. ACGIH Threshold Lim	it Values		
Components	Туре	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Cristobalite (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
Diiron Trioxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Kaolinite (CAS 1318-74-7)	TWA	1 mg/m3	Respirable fraction.
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 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
US. NIOSH: Pocket Guide			_
Components	Туре	Value	Form
Amorphous Silica (CAS 7631-86-9)	TWA	6 mg/m3	
7631-86-9) Cristobalite (CAS 14464-46-1)	TWA	3 fibers/cm3	Fiber.
		3 fibers/cm3 5 mg/m3 5 mg/m3	Dust. Fiber, total fibers, total dust
Diiron Trioxide (CAS 1309-37-1)	TWA	5 mg/m3	Dust and fume.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3 10 mg/m3	Respirable. Total
Quartz (SiO2) (CAS	TWA	0.05 mg/m3	Respirable dust.

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Exposure guidelines Occupational 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

If contact is likely, safety glasses with side shields are recommended. Eye/face protection

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Use of an impervious apron is recommended. Other

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels

exceeding the exposure limits.

Wear appropriate thermal protective clothing, when necessary. Thermal hazards









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

Solid. Physical state **Form** Solid

Color Not available. Odor Not available. **Odor threshold** Not available. pН Not available. Not available. Melting point/freezing point Initial boiling point and boiling Not available.

range

Not available. Flash point **Evaporation rate** Not available. Not available. Flammability (solid, gas) 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. Relative density

Solubility(ies)

Solubility (water) Not available. Not available. Partition coefficient

(n-octanol/water)

Auto-ignition temperature Not available. **Decomposition temperature** Not available. Not available. **Viscosity**

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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.

Contact with incompatible materials. Conditions to avoid

Acids. Powerful oxidizers. Fluorine. Chlorine. Incompatible materials

Incompatibility is based strictly upon potential theoretical reactions between chemicals and may

not be specific to industrial application exposure. Contact your sales representative for

clarification.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected. Eve contact Direct contact with eyes may cause temporary irritation.

Expected to be a low ingestion hazard. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Not available. Acute toxicity

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Serious eve damage/eve

irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

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

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica Carcinogenicity 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. May cause cancer. Occupational exposure to respirable dust and

1 Carcinogenic to humans.

respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Amorphous Silica (CAS 7631-86-9) Cristobalite (CAS 14464-46-1)

3 Not classifiable as to carcinogenicity to humans. Diiron Trioxide (CAS 1309-37-1) Quartz (SiO2) (CAS 14808-60-7) 1 Carcinogenic to humans.

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

US. National Toxicology Program (NTP) Report on Carcinogens

Cristobalite (CAS 14464-46-1) Known To Be Human Carcinogen.

Reasonably Anticipated to be a Human Carcinogen.

3 Not classifiable as to carcinogenicity to humans.

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

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

Not listed.

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

Developmental effects

Quartz (SiO2)

Quartz (SiO2) 0

Developmental effects - EU category
Quartz (SiO2) 0

Embryotoxicity
Quartz (SiO2) 0

Reproductivity

Specific target organ toxicity -

Not classified.

single exposure

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Chronic effects 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

0

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 instructionsThis 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 codeSince 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.

IATA

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.

One or more components are not listed on TSCA.

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.

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

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories 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)

Chemical name	CAS number	% by wt.
Aluminium Oxide (Non-Fibrous)	1344-28-1	20 - 40

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

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)

Amorphous Silica (CAS 7631-86-9)

Cristobalite (CAS 14464-46-1)

Diiron Trioxide (CAS 1309-37-1)

Kaolin (CAS 1332-58-7)

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

Titanium Dioxide (CAS 13463-67-7)

US. New Jersey Worker and Community Right-to-Know Act

Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)

Amorphous Silica (CAS 7631-86-9)

Cristobalite (CAS 14464-46-1)

Diiron Trioxide (CAS 1309-37-1)

Kaolin (CAS 1332-58-7)

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

Titanium Dioxide (CAS 13463-67-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)

Amorphous Silica (CAS 7631-86-9)

Cristobalite (CAS 14464-46-1)

Diiron Trioxide (CAS 1309-37-1)

Kaolin (CAS 1332-58-7)

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

Titanium Dioxide (CAS 13463-67-7)

US. Rhode Island RTK

Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)

US. California Proposition 65

This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Quartz (SiO2) (CAS 14808-60-7) Listed: October 1, 1988

Material name: SATANITE

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)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
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

Listed: September 2, 2011

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

05-19-2015 Issue date 03-28-2016 **Revision date**

Version # 02

United States & Puerto Rico

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

No

contractual relationship.

Disposal considerations: Hazardous waste code **Revision Information**

Regulatory information: California Prop 65 Regulatory information: US state regulations

Toxic Substances Control Act (TSCA) Inventory

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^{*}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).