

## 1. Identification

**Product identifier**                                 **SHAMROCK 394 MORTAR**

**Other means of identification**

**Brand Code**                                     9840

**Recommended use**                               For Industrial Use Only

**Recommended restrictions**                   None known.

**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**               CHEMTREC 24 HOUR             1-800-424-9300  
   EMERGENCY #

## 2. Hazard(s) identification

**Physical hazards**                               Not classified.

**Health hazards**                                 Not classified.

**Environmental hazards**                       Not classified.

**OSHA defined hazards**                       Not classified.

**Label elements**

**Hazard symbol**                             None.

**Signal word**                               None.

**Hazard statement**                       The mixture does not meet the criteria for classification.

**Precautionary statement**

**Prevention**                           Observe good industrial hygiene practices.

**Response**                             Wash hands after handling.

**Storage**                               Store away from incompatible materials.

**Disposal**                             Dispose of waste and residues in accordance with local authority requirements.

**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	%
Chromium (III) oxide		1308-38-9	60 - 80
Aluminium Oxide (Non-Fibrous)		1344-28-1	20 - 40
Other components below reportable levels			10 - 20

\*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.

**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**

Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed**

Treat symptomatically.

**General information**

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

**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. Material can be slippery when wet. 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**

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**

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 Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.
Chromium (III) oxide (CAS 1308-38-9)	PEL	15 mg/m3	Total dust.
		0.5 mg/m3	


**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Chromium (III) oxide (CAS 1308-38-9)	TWA	0.5 mg/m3	

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Chromium (III) oxide (CAS 1308-38-9)	TWA	0.5 mg/m <sup>3</sup>
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).	
<b>Exposure guidelines</b>	Occupational Exposure Limits are not relevant to the current physical form of the product.	
<b>Appropriate engineering controls</b>	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.	
<b>Individual protection measures, such as personal protective equipment</b>		
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).	
<b>Skin protection</b>		
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.	
<b>Other</b>	Wear suitable protective clothing.	
<b>Respiratory protection</b>	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.	
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.	
		
<b>General hygiene considerations</b>	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.	
<b>9. Physical and chemical properties</b>		
<b>Appearance</b>		
<b>Physical state</b>	Solid.	
<b>Form</b>	Solid. Paste.	
<b>Color</b>	Not available.	
<b>Odor</b>	Not available.	
<b>Odor 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.	
<b>Upper/lower flammability or explosive limits</b>		
<b>Flammability limit - lower (%)</b>	Not available.	
<b>Flammability limit - upper (%)</b>	Not available.	
<b>Explosive limit - lower (%)</b>	Not available.	
<b>Explosive limit - upper (%)</b>	Not available.	
<b>Vapor pressure</b>	Not available.	
<b>Vapor density</b>	Not available.	
<b>Relative density</b>	Not available.	
<b>Solubility(ies)</b>		
<b>Solubility (water)</b>	Not available.	

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Chlorine. Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	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

<b>Acute toxicity</b>	Not available.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	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.

**Carcinogenicity** 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.

### IARC Monographs. Overall Evaluation of Carcinogenicity

Chromium (III) oxide (CAS 1308-38-9) 3 Not classifiable as to carcinogenicity to humans.

### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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

Not regulated.

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

<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.

## 12. Ecological information

<b>Ecotoxicity</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>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	
<b>Mobility in soil</b>	No data available.
<b>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.

## 13. Disposal considerations

<b>Disposal instructions</b>	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.
<b>Hazardous waste code</b>	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.
<b>Waste from residues / unused products</b>	As sold, this product is not RCRA hazardous. Final used condition must be evaluated prior to disposal. Dispose of waste product in accordance with Federal, State and Local regulations. The chrome compounds (Cr III) in this product may be altered to a hexavalent compound (Cr VI) under certain use conditions, such as exposure to alkali salts and/or high temperatures. Proper waste testing (such as TCLP) must be done to determine the waste status of used product. Reuse and recycling of chrome Refractories is recommended whenever possible.
<b>Contaminated packaging</b>	Not available.

## 14. Transport information

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

## 15. Regulatory information

<b>US federal regulations</b>	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.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Not listed.
<b>SARA 304 Emergency release notification</b>	Not regulated.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not regulated.
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Aluminium Oxide (Non-Fibrous)	1344-28-1	20 - 40
Chromium (III) oxide	1308-38-9	60 - 80

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Chromium (III) oxide (CAS 1308-38-9)

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

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations**

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

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

1,3-Dichloropropene (CAS 542-75-6)	Listed: January 1, 1989
Dichloromethane (CAS 75-09-2)	Listed: April 1, 1988
Quartz (SiO <sub>2</sub> ) (CAS 14808-60-7)	Listed: October 1, 1988

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

\*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** 09-12-2017**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: Physical States  
Composition / Information on Ingredients: Ingredients  
Toxicological Information: Toxicological Data  
Transport Information: Hazreg Values Transportation  
GHS: Classification