

SAFETY DATA SHEET

1. Identification

Product identifier	TAMAX SC
Other means of identification	
Brand Code	9356
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/Supplie	er/Distributor information
Manufacturer	
Company name	HarbisonWalker International
A al al va a a	1205 Charrington Barlaway, Suita 100

Company name	Harbisonvvalker Internat	ionai
Address	1305 Cherrington Parkw	ay, Suite 100
	Moon Township, Pennsy	Ivania 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	%
Aluminium Oxide (Non-Fibrous)		1344-28-1	50 - 70
Mullite		1302-93-8	40 - 60
Quartz (SiO2)		14808-60-7	1 - 2.5
Other components below reportat	ble levels		1 - 2.5

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.
General information	If you feel unwell, seek medical advice (show the label where possible).
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 meas	sures
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	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. 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

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	Туре	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Quartz (SiO2) (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable 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.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.

Components	Туре	Value	Form
Aluminium Oxide (Non-Fibrous) (CAS 1344-28-1)	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.
US. NIOSH: Pocket Guide	to Chemical Hazards		
Components	Туре	Value	Form
Quartz (SiO2) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Biological limit values	No biological exposure limits noted fo	r the ingredient(s).	
Exposure guidelines	Occupational exposure to nuisance d should be monitored and controlled.	ust (total and respirable) and re	espirable crystalline silica
Appropriate engineering controls	Good general ventilation (typically 10 should be matched to conditions. If ap or other engineering controls to maint exposure limits have not been establi	oplicable, use process enclosur ain airborne levels below recor	es, local exhaust ventilation, nmended exposure limits. If
Individual protection measures Eye/face protection	s, such as personal protective equipmed Wear safety glasses with side shields		
Skin protection Hand protection	Wear appropriate chemical resistant g	gloves.	
Other	Use of an impervious apron is recom	mended.	
Respiratory protection	Use a NIOSH/MSHA approved respir exceeding the exposure limits.	ator if there is a risk of exposur	e to dust/fume at levels
Thermal hazards	Wear appropriate thermal protective of	clothing, when necessary.	

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

Appearance	
Physical state	Solid.
Form	Brick or Cast Shape
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 expl	osive 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	No hazardous decomposition products are known.

products

11. Toxicological information

Information on likely routes of exposure

mornation on incry routes of e	
Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct 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 effe	ects
Acute toxicity	Not known.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitizatior	1
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.

Carcinogenicity IARC Monographs. Overall I Quartz (SiO2) (CAS 1480	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 Scientif main effect in humans of the ir sufficient information to conclu silicosis (and, apparently, not i in the ceramic industry). Then risk" (SCOEL SUM Doc 94-f protection against silicosis car occupational exposure limits. I respirable crystalline silica sho Evaluation of Carcinogenicity	al Agency for Research on Cancer) concluded that crystalline silica rces can cause lung cancer in humans. However in making the d that "carcinogenicity was not detected in all industrial logenicity may be dependent on inherent characteristics of the l 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 nhalation 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 final, June 2003) According to the current state of the art, worker in be consistently assured by respecting the existing regulatory May cause cancer. Occupational exposure to respirable dust and buld be monitored and controlled.
	d Substances (29 CFR 1910.10	1 Carcinogenic to humans. 001-1052)
Quartz (SiO2) (CAS 1480	08-60-7)	Cancer
	ogram (NTP) Report on Carcin	-
Quartz (SiO2) (CAS 1480		Known To Be Human Carcinogen.
Reproductive toxicity	This product is not expected to	o cause reproductive or developmental effects.
Developmental effects Quartz (SiO2)		0
Developmental effects -	EU category	
Quartz (SiO2) Embryotoxicity		0
Quartz (SiO2)		0
Reproductivity		
Quartz (SiO2)	Not classified.	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 three harmful.	ough prolonged or repeated exposure. Prolonged inhalation may be
12. Ecological information	1	
Ecotoxicity	possibility that large or frequer	s environmentally hazardous. However, this does not exclude the nt spills can have a harmful or damaging effect on the environment.
Persistence and degradability		gradability of any ingredients in the mixture.
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Other adverse effects		tal effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component.
13. Disposal consideration	าร	
Disposal instructions	according to Federal regulatio	te, when discarded or disposed of, is not a hazardous waste ns (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the ne, at the time of disposal, whether the product meets RCRA criteria
Hazardous waste code	The Waste Code should be de responsible authority.	everal industries, no Waste Code can be provided by the supplier. etermined in arrangement with your waste disposal partner or the
Waste from residues / unused	Not available.	
products	Not available.	
Contaminated packaging	INUL AVAIIAUIE.	

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

b. Regulatory informat			
S federal regulations	Standard, 29 CFR		efined by the OSHA Hazard Communication ubstances in this product are listed on the TSCA I.
TSCA Section 12(b) Expo	ort Notification (40 CFF	R 707, Subpt. D)	
Not regulated.			
CERCLA Hazardous Sub	stance List (40 CFR 30)2.4)	
Not listed.			
SARA 304 Emergency re	lease notification		
Not regulated.			
OSHA Specifically Regul	-	-	
Quartz (SiO2) (CAS 1	4808-60-7)	Cancer	
		lung effects immune syste	am effects
		kidney effects	
perfund Amendments and	Reauthorization Act o	•	
SARA 302 Extremely haz			
Not listed.			
SARA 311/312 Hazardous	s No (Exempt)		
	1		
SAPA 313 (TPI reporting)			
SARA 313 (TRI reporting) Chemical name	,	CAS number	% by wt.
		CAS number 1344-28-1	% by wt. 50 - 70
Chemical name Aluminium Oxide (Nor			
Chemical name Aluminium Oxide (Nor her federal regulations	n-Fibrous)	1344-28-1	
Chemical name Aluminium Oxide (Nor her federal regulations Clean Air Act (CAA) Sect	n-Fibrous)	1344-28-1	
Chemical name Aluminium Oxide (Nor her federal regulations	n-Fibrous) ion 112 Hazardous Air	1344-28-1 Pollutants (HAPs) List	50 - 70
Chemical name Aluminium Oxide (Nor her federal regulations Clean Air Act (CAA) Sect Not regulated.	n-Fibrous) ion 112 Hazardous Air	1344-28-1 Pollutants (HAPs) List	50 - 70
Chemical name Aluminium Oxide (Nor her federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect	n-Fibrous) ion 112 Hazardous Air	1344-28-1 Pollutants (HAPs) List	50 - 70
Chemical name Aluminium Oxide (Nor her federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA)	i-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F	1344-28-1 Pollutants (HAPs) List	50 - 70
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated.	1344-28-1 Pollutants (HAPs) List	50 - 70
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C	50 - 70
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING:	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. Not regulated. This product can expos to the State of California	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov.
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17-	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C e you to chemicals includir a to cause cancer. For mo e/Carcinogenic substanc -3) Listed: July 1	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov.
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che Quartz (SiO2) (C/	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17- AS 14808-60-7)	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C te you to chemicals includia to cause cancer. For mo e/Carcinogenic substance -3) Listed: July 1 Listed: Octob	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov.
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che Quartz (SiO2) (C/	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17- AS 14808-60-7)	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C te you to chemicals includia to cause cancer. For mo e/Carcinogenic substance -3) Listed: July 1 Listed: Octob	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov.
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Chemical name Aluminium Oxide (Nor her federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che Quartz (SiO2) (C/ US. California. Candi subd. (a))	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17- AS 14808-60-7) idate Chemicals List. S	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C te you to chemicals includia to cause cancer. For mo e/Carcinogenic substance -3) Listed: July 1 Listed: Octob	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov.
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) S state regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che Quartz (SiO2) (C/ US. California. Candi subd. (a)) Quartz (SiO2) (C/	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17- AS 14808-60-7) idate Chemicals List. S AS 14808-60-7)	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C te you to chemicals includia to cause cancer. For mo e/Carcinogenic substance -3) Listed: July 1 Listed: Octob	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov. re , 1990 er 1, 1988 5 Regulations (Cal. Code Regs, tit. 22, 69502.3,
Chemical name Aluminium Oxide (Nor ther federal regulations Clean Air Act (CAA) Sect Not regulated. Clean Air Act (CAA) Sect Not regulated. Safe Drinking Water Act (SDWA) State regulations California Proposition 65 WARNING: California Proposition Glass, Oxide, Che Quartz (SiO2) (C/ US. California. Candi subd. (a)) Quartz (SiO2) (C/	n-Fibrous) ion 112 Hazardous Air ion 112(r) Accidental F Not regulated. This product can expos to the State of California on 65 - CRT: Listed date emicals (CAS 65997-17- AS 14808-60-7) idate Chemicals List. S AS 14808-60-7) Inventory name	1344-28-1 Pollutants (HAPs) List Release Prevention (40 C te you to chemicals includia to cause cancer. For mo e/Carcinogenic substance -3) Listed: July 1 Listed: Octob	50 - 70 FR 68.130) ng Quartz (SiO2): Quartz (SiO2), which is known re information go to www.P65Warnings.ca.gov. ee , 1990 er 1, 1988 s Regulations (Cal. Code Regs, tit. 22, 69502.3, On inventory (yes/no)

Country(s) or region	Inventory name C)n inventory (yes/no)*
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)	Yes
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
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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	09-08-2015	
Revision date	11-10-2021	
Version #	02	
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	This document has undergone significant changes and should be reviewed in its entirety.	