SAFETY DATA SHEET

1. Identification

Product identifier GREENPATCH-421 XTP

Other means of identification

Brand Code 826A

For Industrial Use Only Recommended use

Avoid dry cutting, blasting, or dust generation. Users should be informed of the potential presence **Recommended restrictions**

> 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

HarbisonWalker International Company name

Address 1305 Cherrington Parkway, Suite 100

> Moon Township Pennsylvania

15108 US

Telephone General Phone: 412-375-6600

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

2. Hazard identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2

> Serious eye damage/eye irritation Category 2B Carcinogenicity Category 1A Specific target organ toxicity, repeated Category 1

exposure

Environmental hazards Not classified.

Label elements



Signal word

Hazard statement Causes skin irritation. Causes eye irritation. 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.

IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several Response

minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it

before reuse.

Storage Store away from incompatible materials.

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

Other hazards None known.

Material name: GREENPATCH-421 XTP SDS CANADA

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ALPHA-ALUMINA		1344-28-1	10 - 25
Kyanite		1302-76-7	10 - 25
Mullite		1302-93-8	10 - 25
Kaolin		1332-58-7	2.5 - 10
SILICA, AMORPHOUS, FUMED	Fumed Silica Silica, crystalline free	7631-86-9	2.5 - 10
SILICA, CRYSTALLINE, QUARTZ		14808-60-7	2.5 - 10
Silicic Acid, Sodium Salt		1344-09-8	2.5 - 10
Titanium Dioxide		13463-67-7	1 - 2.5
SILICA, CRYSTALLINE, CRISTOBALITE		14464-46-1	< 0.5
Other components below reportable	e levels		10 - 25

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.

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get Skin contact

medical advice/attention. Wash contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin

irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Rinse mouth. Get medical attention if symptoms occur. Ingestion

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

General information

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

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

Use fire-extinguishing media appropriate for surrounding materials.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from

the chemical

Not available. 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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. 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.

Material name: GREENPATCH-421 XTP SDS CANADA

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. Avoid contact with eyes, skin, and clothing. 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 tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Value

Components	Туре	Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 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.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Туре	Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	10 mg/m3	
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable.
		0.025 mg/m3	Respirable particles.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable particles.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Туре	Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	1 mg/m3	Respirable.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable.
Kyanite (CAS 1302-76-7)	TWA	1 mg/m3	Respirable.
Mullite (CAS 1302-93-8)	TWA	1 mg/m3	Respirable.
SILICA, AMORPHOUS, FUMED (CAS 7631-86-9)	TWA	4 mg/m3	Total
		1.5 mg/m3	Respirable.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable fraction.

Material name: GREENPATCH-421 XTP

Components	Туре	Value	Form
		10 mg/m3	Total dust.
canada. Manitoba OELs (Reg. 217/ Components	2006, The Workplace Safety A Type	nd Health Act) Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 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.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
Canada. Ontario OELs. (Control of Components	Exposure to Biological or Che Type	mical Agents) Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	1 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 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.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable fraction.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
Canada. Quebec OELs. (Ministry of Components	f Labor - Regulation respecting Туре	g occupational health and sa Value	fety) Form
ALPHA-ALUMINA (CAS 1344-28-1)	TWA	10 mg/m3	Total dust.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable dust.
SILICA, AMORPHOUS, FUMED (CAS 7631-86-9)	TWA	6 mg/m3	Respirable dust.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)	TWA	0.05 mg/m3	Respirable dust.
SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Total dust.
Canada. Saskatchewan OELs (Occ Components	upational Health and Safety Ro Type	egulations, 1996, Table 21) Value	Form
ALPHA-ALUMINA (CAS 1344-28-1)	15 minute	20 mg/m3	
	8 hour	10 mg/m3	
Kaolin (CAS 1332-58-7)	15 minute	4 mg/m3	Respirable fraction.
	8 hour	2 mg/m3	Respirable fraction.
(Yanite (CAS 1302-76-7)	15 minute	20 mg/m3	Dust.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) **Form** Components Value Type 8 hour 10 mg/m3 Dust. Mullite (CAS 1302-93-8) 15 minute 20 mg/m3 Dust. 8 hour 10 mg/m3 Dust. SILICA. CRYSTALLINE. 15 minute 10 mg/m3 Inhalable fraction. CRISTOBALITE (CAS 14464-46-1) 8 hour 0.05 mg/m3 Respirable fraction. SILICA, CRYSTALLINE, 8 hour 0.05 mg/m3 Respirable fraction. QUARTZ (CAS 14808-60-7) Titanium Dioxide (CAS 15 minute 20 mg/m3 13463-67-7) 8 hour 10 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Occupational exposure to nuisance dust (total and respirable)

and respirable crystalline silica should be monitored and controlled.

Occupational Exposure Limits are not relevant to the current physical form of the product.

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. Provide

eyewash station and safety shower.

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 appropriate chemical resistant clothing. Use of an impervious apron is recommended.

exceeding the exposure limits.

Thermal hazards Wear appropriate thermal protective 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 stateSolid.FormPaste.

Color Not available.

Odor Not available.

Odor threshold Not available.

PH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling Not available.

range

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Flammability limit - upper

Not available.

Not available.

(%)

Explosive limit - lower (%) Not available. Not available. Explosive limit - upper (%)

Not available. Vapor pressure Vapor density Not available. Not available. Relative density

Solubility(ies)

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

(n-octanol/water)

Not available. Auto-ignition temperature **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 Acids. Powerful oxidizers. Chlorine.

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

Inhalation No adverse effects due to inhalation are expected.

Skin contact Causes skin irritation. Eye contact Causes eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin

irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Not known.

Skin corrosion/irritation Causes skin irritation. Serious eye damage/eye Causes eye irritation.

irritation

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

Irritant

SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)

Titanium Dioxide (CAS 13463-67-7) Irritant

Respiratory sensitization Not a respiratory sensitizer.

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

Material name: GREENPATCH-421 XTP 826A Version #: 02 Revision date: 10-19-2021 Issue date: 02-08-2018

Germ cell mutagenicity

Carcinogenicity

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 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 respirable crystalline silica should be monitored and controlled.

A2 Suspected human carcinogen.

Suspected human carcinogen.

A4 Not classifiable as a human carcinogen.

Not classifiable as a human carcinogen.

Detected carcinogenic effect in animals.

Suspected carcinogenic effect in humans.

3 Not classifiable as to carcinogenicity to humans.

ACGIH Carcinogens

ALPHA-ALUMINA (CAS 1344-28-1) A4 Not classifiable as a human carcinogen. Kaolin (CAS 1332-58-7) A4 Not classifiable as a human carcinogen. Kyanite (CAS 1302-76-7) A4 Not classifiable as a human carcinogen. Mullite (CAS 1302-93-8) A4 Not classifiable as a human carcinogen. SILICA, CRYSTALLINE, CRISTOBALITE (CAS A2 Suspected human carcinogen. 14464-46-1)

Titanium Dioxide (CAS 13463-67-7) Canada - Alberta OELs: Carcinogen category

SILICA, CRYSTALLINE, CRISTOBALITE (CAS Suspected human carcinogen. 14464-46-1)

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)

Canada - Manitoba OELs: carcinogenicity

ALPHA-ALUMINA (CAS 1344-28-1) Not classifiable as a human carcinogen. Kaolin (CAS 1332-58-7) Not classifiable as a human carcinogen. Kyanite (CAS 1302-76-7) Not classifiable as a human carcinogen. Mullite (CAS 1302-93-8) Not classifiable as a human carcinogen. SILICA, CRYSTALLINE, CRISTOBALITE (CAS Suspected human carcinogen.

14464-46-1)

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7) Suspected human carcinogen.

Titanium Dioxide (CAS 13463-67-7)

Canada - Quebec OELs: Carcinogen category

SILICA, CRYSTALLINE, CRISTOBALITE (CAS

14464-46-1)

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)

IARC Monographs. Overall Evaluation of Carcinogenicity

SILICA, AMORPHOUS, FUMED (CAS 7631-86-9) SILICA, CRYSTALLINE, CRISTOBALITE (CAS

14464-46-1)

Reproductive toxicity

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)

Titanium Dioxide (CAS 13463-67-7)

US. National Toxicology Program (NTP) Report on Carcinogens

SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)

SILICA, CRYSTALLINE, QUARTZ (CAS 14808-60-7)

Known To Be Human Carcinogen.

2B Possibly carcinogenic to humans.

Reasonably Anticipated to be a Human Carcinogen.

Known To Be Human Carcinogen.

1 Carcinogenic to humans.

1 Carcinogenic to humans.

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

Developmental effects

SILICA, CRYSTALLINE, QUARTZ 0 **Developmental effects - EU category** SILICA, CRYSTALLINE, QUARTZ 0 **Embryotoxicity** SILICA, CRYSTALLINE, QUARTZ 0 Reproductivity SILICA, CRYSTALLINE, QUARTZ 0

Material name: GREENPATCH-421 XTP 826A Version #: 02 Revision date: 10-19-2021 Issue date: 02-08-2018 Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. 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 any ingredients in the mixture.

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

TDG

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

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS

contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Material name: GREENPATCH-421 XTP
826A Version #: 02 Revision date: 10-19-2021 Issue date: 02-08-2018

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

Country(s) or region

International Inventories

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
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No
*A "Yes" indicates that all compo	pents of this product comply with the inventory requirements administered by the governing country(s)	

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

Issue date 02-08-2018 **Revision date** 10-19-2021

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.

Inventory name

This document has undergone significant changes and should be reviewed in its entirety. **Revision information**

Material name: GREENPATCH-421 XTP SDS CANADA

On inventory (yes/no)*