

## 1 Identification of the substance/mixture/product and of the company

### Product identifier

**Trade name:** **JUSTAL SCP74Y00**  
**Application of the substance / the mixture** Refractory product

### Details of the supplier of the safety data sheet

**Manufacturer/Supplier:** RHI Canada Inc.  
 4355 Fairview Street  
 Burlington, Ontario L7L 2A4  
 Canada  
 Tel 905-639-8660

**Information department:** MSDS Technical Information  
 Mail: msds@rhi-ag.com

**Emergency telephone number:** Tel: +43 699 1870 5426  
 Fax: +43 502 13 5364

## 2 Hazard(s) identification

**Information concerning particular hazards for human and environment:** not applicable

**Special labeling of certain preparations:** USA NIOSH approved / Canada CSA-Z94.4-93 approved: Respirators should be used if dust / fume is present.  
 A respiratory protection program should be implemented if exposure exceeds the American Conference of Governmental Industrial Hygienists (ACGIH) defined Time Weighted Average (TWA)

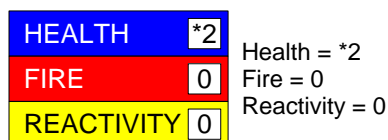
The cancer risk occurs only in the presence of dust

### Classification system

#### NFPA ratings (scale 0-4)



#### HMIS Classification



### Carcinogenicity:

The cancer risk occurs only in the presence of dust

### Other hazards

The cancer risk occurs only in the presence of dust  
 Binder from a mix of polyaromatic and heterocyclic hydrocarbons. The product contains small amounts of PAHs (polynuclear aromatic hydrocarbons). At temperatures >250 °C or during dust formation PAHs can be released.

In order to minimize the formation of health and environment-relevant decomposition products, the specified heating conditions have to be observed.

(Contd. on page 2)

USA

# Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 1)

See section 11.

## 3 Composition/information on ingredients

### Chemical characterization: Mixtures

#### Description:

Shaped refractory product on the basis of  
The product is pitch-impregnated.

The product is tempered (heat-treated).

92797-42-7	bauxite, calcined	1-1.5%
12069-32-8	boron carbide	0.5-1.5%
1302-76-7	alumina silicate (kyanite)	0.5-1.5%
60676-86-0	fused silica, crystalline <0.1%	0.1-1%

#### Dangerous components:

1344-28-1	aluminium oxide (non-fibrous form)	40-60%
1314-23-4	zirconium dioxide	30-40%
1302-93-8	aluminium silicate	1.5-3%
	phenolic resin hardened	1.5-3%
	synthetic pitch, heat-treated	1-1.5%
1309-48-4	magnesium oxide	0.5-1.5%
14808-60-7	quartz (SiO <sub>2</sub> )	0.5-1.5%
14464-46-1	cristobalite	0.1-1%
65996-93-2	pitch, coal tar, high-temp.	0.1-1%

#### Additional information

Repeated overexposure to very high levels of respirable Crystalline Silica (quartz, cristobalite, tridymite) for periods as short as six months have caused acute silicosis. Excessive inhalation of dust may result in respiratory disease, including silicosis, pneumoconiosis and pulmonary fibrosis.

## 4 First-aid measures

### Description of first aid measures

#### General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

#### After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

#### After skin contact

Generally the product does not irritate the skin.

#### After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

#### After swallowing

If symptoms persist consult doctor.

#### Most important symptoms and effects, both acute and delayed:

No further relevant information available.

#### Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

## 5 Fire-fighting measures

### Extinguishing media

#### For safety reasons unsuitable extinguishing agents

Not applicable, the product is fire resistant.

#### Special hazards arising from the substance or mixture

see section 2

(Contd. on page 3)

USA

## Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 2)

**Advice for firefighters****Protective equipment /****Protection of firefighters:****Hazardous combustion products****Flammable properties****Additional information:**

Mount respiratory protective device.

Will not occur.

The product is fire resistant.

Not flammable.

Additional information see section 9.

**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures****Environmental precautions:****Methods and material for containment and cleaning up:****Reference to other sections**

See section 8.

See section 12.

Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.**7 Handling and storage****Precautions for safe handling**Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.**Information about protection****against explosions and fires:** The product is not flammable.**Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and receptacles:**

No special requirements.

**Information about storage in one common storage facility:**

Not applicable.

**Further information about storage conditions:**

Keep receptacle tightly sealed.

**Specific end use(s)**

No further relevant information available.

**8 Exposure controls/personal protection****Additional information about****design of technical systems:** No further data; see item 7.**Control parameters****Exposure Guidelines (Components with limit values that require monitoring at the workplace):****1344-28-1 aluminium oxide (non-fibrous form)**PEL Long-term value: 15\*; 15\*\* mg/m<sup>3</sup>  
\*Total dust; \*\* Respirable fractionREL Long-term value: 10\* 5\*\* mg/m<sup>3</sup>  
as Al\*Total dust\*\*Respirable/pyro powd./welding f.TLV Long-term value: 1\* mg/m<sup>3</sup>  
as Al; \*as respirable fraction

(Contd. on page 4)

USA

# Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 3)

**1314-23-4 zirconium dioxide**

PEL Long-term value: 5 mg/m<sup>3</sup>  
as Zr

REL Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>  
as Zr

TLV Short-term value: 10 mg/m<sup>3</sup>  
Long-term value: 5 mg/m<sup>3</sup>  
as Zr

**1302-93-8 aluminium silicate**

TLV Short-term value: 10 mg/m<sup>3</sup>  
containing no asbestos and <1% crystalline silica

**1309-48-4 magnesium oxide**

PEL Long-term value: 15\* mg/m<sup>3</sup>  
fume; \*total particulate

TLV Long-term value: 10\* mg/m<sup>3</sup>  
\*as inhalable fraction

**14808-60-7 quartz (SiO<sub>2</sub>)**

PEL see Quartz listing

REL Long-term value: 0.05\* mg/m<sup>3</sup>  
\*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025\* mg/m<sup>3</sup>  
\*as respirable fraction

**60676-86-0 fused silica, crystalline <0.1%**

PEL see Quartz listing

TLV TLV withdrawn

**65996-93-2 pitch, coal tar, high-temp.**

PEL Long-term value: 0.2 mg/m<sup>3</sup>

REL Long-term value: 0.1\* mg/m<sup>3</sup>  
\*Cyclohexane-extrble.fraction; PocketGuide Apps.A+C

TLV Long-term value: 0.2 mg/m<sup>3</sup>  
BEIp

**Ingredients with biological limit values:****65996-93-2 pitch, coal tar, high-temp.**

BEI -  
Medium: urine  
Time: end of shift at end of workweek  
Parameter: 1-Hydroxypyrene with hydrolysis (nonquantitative)

**Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls****Personal protective equipment (PPE)****General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**Respiratory protection / Breathing equipment:**

NIOSH approved respirators should be used if dust is present. A respiratory protection program should be implemented if exposure exceeds OSHA PELs.

**Respiratory protection Protection of hands:**

Filter P100  
Leather gloves  
Protective gloves

**Eye/face protection:**

Safety glasses with side shields

**Skin protection:**

Protective work clothing.

- USA -

(Contd. on page 5)

## Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 4)

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

##### Appearance:

Form (Physical state):	Solid
Color:	Black
Odor:	Aromatic
Odor threshold:	Not determined.

pH-value: Not applicable.

Melting point / Melting range: Not determined.

Flash point: Not applicable.

Flammability (solid, gaseous) Product is not flammable.  
See section 5.

Ignition temperature: Not applicable.

Decomposition temperature: Not applicable.

Auto igniting: Product is not self igniting.

Danger of explosion: Product does not present an explosion hazard.

#### Explosion limits:

Lower:	Not applicable.
Upper:	Not applicable.

Vapor pressure:	Not applicable.
Relative density	Not applicable.
Vapour density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with Water: Not applicable.  
Insoluble.

Partition coefficient (n-octanol/water): Not applicable.

Viscosity:	Not applicable.
dynamic:	Not applicable.
kinematic:	Not applicable.

Other information No further relevant information available.

#### Additional information

Melting Point: NA  
Freezing Point: NA  
Viscosity (and units): NA  
Odor Threshold (ppm): NA  
Evaporation Rate (relative to): NA  
Vapor Density (air =1): NA  
Vapor Pressure (units): NA  
pH (undiluted): NA  
pH (diluted): NA  
% dilution: NA  
VOC Content: NA  
% Volatile: NA  
PM Content: NA

## 10 Stability and reactivity

### Reactivity

#### Chemical stability

##### Conditions to avoid (Thermal decomposition):

No decomposition if used and stored according to specifications.  
The product itself is not combustible, but decomposition products of the binder which are formed during heating up are combustible

#### Possibility of hazardous reactions

No dangerous reactions known

(Contd. on page 6)

USA

## Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 5)

**Conditions to avoid  
Hazardous decomposition  
products:**

No further relevant information available.

Binder from a mix of polyaromatic and heterocyclic hydrocarbons. The product contains small amounts of PAHs (polynuclear aromatic hydrocarbons). At temperatures >250 °C or during dust formation PAHs can be released.

In order to minimize the formation of health and environment-relevant decomposition products, the specified heating conditions have to be observed.

\* **11 Toxicological information****Information on toxicological effects****Acute toxicity:****LD/LC50 values that are relevant for classification:****phenolic resin hardened**

Inhalative	LC50/4 h	316 mg/l (rat)
------------	----------	----------------

**Primary irritant effect:****on the skin:**

May cause dryness and irritation

**on the eye:**

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Additional toxicological  
information:**

Harmful

If this product has been in service at temperatures greater than 1000°C (1800°F) it may contain cristobalite, a form of crystalline silica. IARC has classified crystalline silica, which includes cristobalite, as a group I carcinogen (known human carcinogen).

**Carcinogenic categories****IARC (International Agency for Research on Cancer)**

14808-60-7	quartz (SiO <sub>2</sub> )	1
60676-86-0	fused silica, crystalline <0.1%	3
14464-46-1	cristobalite	1
65996-93-2	pitch, coal tar, high-temp.	1

**NTP (National Toxicology Program)**

14808-60-7	quartz (SiO <sub>2</sub> )	K
14464-46-1	cristobalite	R
65996-93-2	pitch, coal tar, high-temp.	K

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

\* **12 Ecological information****Toxicity****Aquatic toxicity:**

No further relevant information available.

**Persistence and degradability**

No further relevant information available.

**Bioaccumulative potential**

No further relevant information available.

**Mobility in soil**

No further relevant information available.

**Results of PBT and vPvB assessment****PBT:**

65996-93-2	pitch, coal tar, high-temp.
------------	-----------------------------

**vPvB:**

Not applicable.

**Other adverse effects**

No further relevant information available.

—USA—

(Contd. on page 7)

## Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 6)

## \* 13 Disposal considerations

**Waste treatment methods  
Recommendation**

Can be recycled at time of supply.  
US EPA Waste Number & Descriptions

A: General Product Information  
This product, when discarded in its purchased form, is not considered a characteristic hazardous waste according to Federal regulations (40 CFR 261). You must test your waste using methods described in 40 CFR Part 261 to determine if it meets these or other applicable definitions of hazardous wastes.

B: Component Waste Numbers  
No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions  
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.  
See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations

**Uncleaned packagings:  
Recommendation:**

Disposal must be made according to official regulations.

## \* 14 Transport information

<b>UN-Number</b> DOT, ADR, ADN, IMDG, IATA	not applicable
<b>UN proper shipping name</b> DOT, ADR, ADN, IMDG, IATA	not applicable
<b>Transport hazard class(es)</b>  DOT, ADR, ADN, IMDG, IATA Class	not applicable
<b>Packing group</b> DOT, ADR, IMDG, IATA	not applicable
<b>Environmental hazards:</b>	Not applicable.
<b>Special precautions for user</b> <b>Danger code (Kemler):</b>	Not applicable. Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	Not dangerous according to available informations.

## \* 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>TSCA (Toxic Substances Control Act):</b>	
1344-28-1	aluminium oxide (non-fibrous form)
1314-23-4	zirconium dioxide
1302-93-8	aluminium silicate
	phenolic resin hardened
1309-48-4	magnesium oxide
12069-32-8	boron carbide
14808-60-7	quartz (SiO <sub>2</sub> )

(Contd. on page 8)

USA

## Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 7)

60676-86-0	fused silica, crystalline <0.1%
14464-46-1	cristobalite
65996-93-2	pitch, coal tar, high-temp.

**Proposition 65**

<b>Chemicals known to cause cancer:</b>	
14808-60-7	quartz (SiO <sub>2</sub> )

<b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	

<b>Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	

<b>Chemicals known to cause developmental toxicity:</b>	
None of the ingredients is listed.	

**WHMIS**

D2A - Very toxic material causing other toxic effects

**Additional classification according to Decree on Hazardous Materials**

PRODUCT MAY CONTAIN CRYSTALLINE SILICA, an IARC and NTP listed cancer agent. Prolonged or repeated inhalation of dust from products containing crystalline silica can cause silicosis or cancer.

**Carcinogen categories**

<b>EPA (Environmental Protection Agency)</b>	
12069-32-8	boron carbide I (oral)

<b>TLV (Threshold Limit Value established by ACGIH)</b>		
1344-28-1	aluminium oxide (non-fibrous form)	A4
1314-23-4	zirconium dioxide	A4
1309-48-4	magnesium oxide	A4
14808-60-7	quartz (SiO <sub>2</sub> )	A2
65996-93-2	pitch, coal tar, high-temp.	A1

<b>MAK (German Maximum Workplace Concentration)</b>		
1344-28-1	aluminium oxide (non-fibrous form)	2
14808-60-7	quartz (SiO <sub>2</sub> )	1
14464-46-1	cristobalite	1

<b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
14808-60-7	quartz (SiO <sub>2</sub> )
60676-86-0	fused silica, crystalline <0.1%
14464-46-1	cristobalite
65996-93-2	pitch, coal tar, high-temp.

**Product related hazard informations:****Risk phrases:**

Harmful by inhalation and in contact with skin.  
Danger of serious damage to health by prolonged exposure.

**Safety phrases:**

Do not breathe dust.  
Avoid contact with skin.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Wear suitable protective clothing, gloves and eye/face protection.  
In case of accident or if you feel unwell, seek medical advice immediately.  
If swallowed, seek medical advice immediately and show this container or label.  
Use only in well-ventilated areas.  
In case of accident by inhalation: remove casualty to fresh air and keep at rest  
If swallowed, rinse mouth with water (only if the person is conscious)

**Special labeling of certain preparations:**

If dust or fumes are present, wear NIOSH approved respirator.

(Contd. on page 9)

USA



# Safety Data Sheet

Printing date 12/13/2014

Reviewed on 12/13/2014

Trade name: JUSTAL SCP74Y00

(Contd. of page 8)

## National regulations:

### SARA 313 TOXIC CHEMICALS

No material listed in the components in Section 3 of this MSDS is on the SARA 313 list.

### SARA 302 EXTREMELY HAZARDOUS SUBSTANCES

No material listed in the components in Section 3 of this MSDS is on the SARA 302 list.

### TSCA (Toxic Substances Control Act)

This substance or all the ingredients of this product are on the Chemical Substances Inventory of the Toxic Substances Control Act (TSCA Inventory). The presence on this list does not require any legal reporting

### HMIS Classification

Class D - Division2 - Subdivision A

Untested mixture containing a very toxic material

Class D - Division2 - Subdivision B

Untested mixture containing a toxic material

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### Relevant phrases

The manufactured good, even treated as a compound, has been cured, hence the benzoapyren is lower than 50ppm.

### Department issuing MSDS:

RHI AG Technology Center  
Chemistry Department  
Austria  
Phone: +43 502 13 5426  
Mail: msds@rhi-ag.com

### Contact:

for USA:  
Brian Plaskett  
Corporate EHS Manager  
RHI Canada Inc. / RHI US Ltd. / Veitsch-Radex America LLC  
Cell: (519) 318-5401  
Fax: (905) 639-1299 (Burlington)  
Mail: brian.plaskett@rhi-ag.com

### Date of preparation / last revision

12/13/2014 / 64

\* Data compared to the  
previous version altered.

-USA-