

# UNCONTROLLED

## MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 1 of 13

### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

MASTERSHIELD COLOURED QUARTZ

#### SYNONYMS

|                    |                   |
|--------------------|-------------------|
| crystalline silica | agate             |
| flint              | amethyst          |
| celite             | chalcedony        |
| cherts             | silica flour      |
| chertz             | flintshot         |
| Gold Bond R        | lmsil             |
| novaculite         | ground quartz     |
| onyx               | alpha- quartz     |
| rose quartz        | min- u- sil       |
| Sil- co- sil       | silicic anhydride |
| silicon dioxide    | oxide             |
| quartz sand        | SiO2              |
| Cobblestone Paving |                   |

#### PRODUCT USE

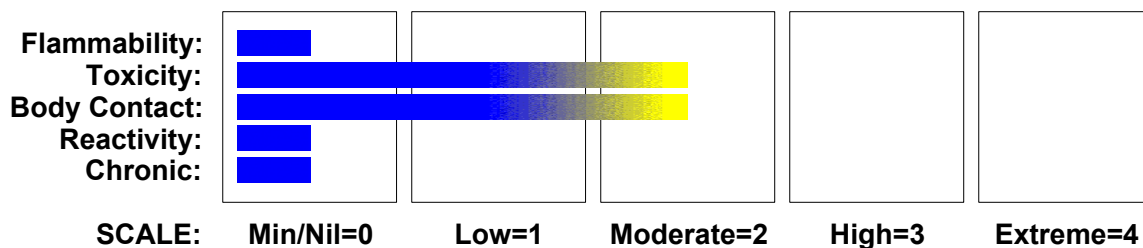
For decoration in Mastershield Polymer Flooring.

#### SUPPLIER

Company: Cobblestone Paving Australia P/L  
Address:  
PO Box 2057  
Burleigh Mdc, Gold Coast  
QLD, 4220  
AUS

Company: Cobblestone Paving Australia P/L  
Address:  
45 Alex Fisher Drive  
Burleigh Gardens  
QLD, 4220  
AUS  
Telephone: +61 7 5593 7766  
Fax: 07 5593 7777

#### HAZARD RATINGS



### Section 2 - HAZARDS IDENTIFICATION

#### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.**

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 2 of 13

## Section 2 - HAZARDS IDENTIFICATION ...

According to the Criteria of NOHSC, and the ADG Code.



## POISONS SCHEDULE

None

## RISK

Irritating to eyes and skin.  
Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
Inhalation may produce health damage\*.  
Cumulative effects may result following exposure\*.  
\* (limited evidence)

## SAFETY

Do not breathe dust.  
Wear eye/face protection.  
Use only in well ventilated areas.  
Keep container in a well ventilated place.  
Take off immediately all contaminated clothing.  
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.  
If you feel unwell contact Doctor or Poisons Information Centre. (Show the label if possible).

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| NAME                                     | CAS RN     | %       |
|--|------------|---------|
| silica crystalline - quartz              | 14808-60-7 | >60     |
| sodium metasilicate                      | 1344-09-8  | 1-5     |
| ball clay                                | 1332-58-7  | 1-5     |
| C.I. Pigment Blue 28                     | 1345-16-0  | 0.1-1.0 |
| other pigments and additives unregulated |            | 1-10    |

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 3 of 13

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## Section 4 - FIRST AID MEASURES ...

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- Seek medical advice.

### EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

### NOTES TO PHYSICIAN

Long term exposure to high dust concentrations may cause changes in lung function (i.e. pneumoconiosis) caused by particles less than 0.5 micron penetrating and remaining in the lung. A prime symptom is breathlessness. Lung shadows show on X-ray.

Exposed workers should be medically examined regularly with emphasis on respiratory system. Individuals with pulmonary disease should be precluded from exposure.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

There is no restriction on the type of extinguisher which may be used.

### FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.

Use fire fighting procedures suitable for surrounding area.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

### FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

### HAZCHEM

None

### Personal Protective Equipment

Glasses:  
Chemical goggles.

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 4 of 13

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## Section 5 - FIRE FIGHTING MEASURES ...

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Gloves:  
General purpose rubber glove.

Respirator:  
Particulate

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Sweep up or
- Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place in clean drum then flush area with water.

#### MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment and dust respirator.
- Prevent spillage from entering drains, sewers or water courses.
- Recover product wherever possible. Avoid generating dust.
- Sweep / shovel up.
- If required, wet with water to prevent dusting.
- Put residues in labelled plastic bags or other containers for disposal.
- Wash area down with large quantity of water and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

### EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

other than mild, transient adverse effects without perceiving a clearly defined odour is:

American Industrial Hygiene Association (AIHA)

**Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

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# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 5 of 13

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## Section 7 - HANDLING AND STORAGE

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### PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- When handling DO NOT eat, drink or smoke.
- Always wash hands with soap and water after handling.
- Avoid physical damage to containers.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.

### SUITABLE CONTAINER

Multi ply paper bag with sealed plastic liner or heavy gauge plastic bag

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks. Packing as recommended by manufacturer.

### STORAGE INCOMPATIBILITY

Avoid storage with hydrogen fluoride, oxygen difluoride, chlorine trifluoride, manganese trifluoride, fluorine, manganese trioxide, chlorine trioxide, concentrated phosphoric acid or vinyl acetate.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

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### EXPOSURE CONTROLS

None assigned. Refer to individual constituents.

### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :0.0502 mg/m<sup>3</sup>.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m<sup>3</sup> Mixture Conc (%)

| Component            | Breathing Zone<br>(mg/m <sup>3</sup> ) | Mixture Conc<br>(%) |
|----------------------|--|---------------------|
| C.I. Pigment Blue 28 | 0.0005                                 | 1.0                 |

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 6 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

|                             |        |      |
|-----------------------------|--------|------|
| silica crystalline - quartz | 0.0487 | 97.0 |
| ball clay                   | 0.0005 | 1.0  |
| sodium metasilicate         | 0.0005 | 1.0  |

### INGREDIENT DATA

#### SILICA CRYSTALLINE - QUARTZ:

TLV TWA: 0.05 mg/m<sup>3</sup> (R) Quartz A2 [ACGIH]

PEL: (Quartz (Respirable)) [OSHA Z3]250 / (%SiO(2)+5) mppcf

Footnote (b): The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

PEL: (Quartz (Respirable)) [OSHA Z3]10 / (%SiO(2)+2) mg/m<sup>3</sup>

Footnote (e): Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics.

| Aerodynamic diameter (unit density sphere) | Percent passing selector |
|--|--------------------------|
| 2.0  | 90                       |
| 2.5  | 75                       |
| 3.5  | 50                       |
| 5.0  | 25                       |
| 10   | 0                        |

The measurements under this note refer to the uses of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figures corresponding to that of 2.4 mg/m<sup>3</sup> in the table for coal dust, is 4.5 mg/m<sup>3</sup>.

PEL: (Quartz (Total Dust)) [OSHA Z3]30 / (%SiO(2) + 2) mg/m<sup>3</sup>

TLV TWA: 0.05 mg/m<sup>3</sup> (respirable dust) A2

The concentration of respirable dust for application of this limit is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative lognormal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e. generally less than 5 µm.

WARNING: For inhalation exposure ONLY:

This substance has been classified by the ACGIH as A2 Suspected Human Carcinogen.

ES TWA: 0.2 mg/m<sup>3</sup>

MEL TWA: 0.3 mg/m<sup>3</sup> (respirable dust)

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

#### SODIUM METASILICATE:

CEL TWA: 2 mg/m<sup>3</sup>

[Manufacturer]

#### BALL CLAY:

PEL Total particulate: 15mg/m<sup>3</sup> [OSHA Z1]

PEL Respirable fraction : 5mg/m<sup>3</sup> [OSHA Z1]

TLV TWA: 2 mg/m<sup>3</sup> respirable dust (as kaolin)

ES TWA: 10 mg/m<sup>3</sup> inspirable dust containing no asbestos and <1% crystalline silica (as kaolin)

OES TWA: 2 mg/m<sup>3</sup> respirable dust (as kaolin)

The concentration of respirable dust for application of this limit is to be determined from the fraction that penetrates a separator whose size collection

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 7 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

efficiency is described by a cumulative lognormal function with a median aerodynamic diameter of  $4.0 \mu\text{m}$  (+-)  $0.3 \mu\text{m}$  and with a geometric standard deviation of  $1.5 \mu\text{m}$  (+-)  $0.1 \mu\text{m}$ , i.e. generally less than  $5 \mu\text{m}$ .

### C.I. PIGMENT BLUE 28:

TLV TWA:  $0.02 \text{ mg/m}^3$  A3; BEI [ACGIH]

cobalt, elemental and inorganic compounds, as Co (A.Wt: 58.93)

TLV TWA:  $0.02 \text{ mg/m}^3$  A3

MEL TWA:  $0.1 \text{ mg/m}^3$

CAUTION: This substance has been classified by the ACGIH as A3 Animal Carcinogen (at relatively high doses)

IDLH Level:  $20 \text{ mg/m}^3$

Epidemiological studies do not support a link between cobalt and abnormal growths (neoplasms) in humans.

In view of the serious effects seen in experimental animals after a relatively short exposure period at  $0.1 \text{ mg/m}^3$  the recommended TLV-TWA is thought to reduce the significant risk of material impairment of health posed by respiratory disease and pulmonary sensitization which have been shown to occur at higher levels of exposure. The value does not apply generally to cobalt compounds. A significant increase in the risk of lung cancer was reported among workers involved in cobalt production (with concomitant exposure to nickel and arsenic) and hard-metal workers with documented exposure to cobalt-containing dusts. A significant increase in lung cancer risk was reported among workers involved in cobalt production (with concomitant exposure to nickel and arsenic) and hard-metal workers with documented exposure to cobalt-containing dusts. A significant increase in lung cancer risk has been observed in workers whose exposure began more than 20 years previously. A number of single cases of malignant tumours, mostly sarcomas, have been reported at the site, following implant of cobalt-containing orthopedic implants.

TRK:  $0.5 \text{ mg/m}^3$  (in the form of cobalt metal, cobalt oxide, and cobalt sulfide) during production of cobalt powder and catalysts: hard metal (tungsten carbide) and magnet production (processing of powder, machine pressing and mechanical processing of unsintered articles) ;  $0.1 \text{ mg/m}^3$  (others) measured as inhalable fraction of the aerosol

The technical exposure limit, TRK (Technische Richtkonzentrationen), defines the airborne concentration of named carcinogenic materials which is the minimum possible given the state of current technologies. TRK values are assigned only for materials for which there is no current MAK (German exposure standard). Observance of the TRK value is intended to reduce the risk of adverse effects on health but does NOT completely eliminate it. Since no threshold doses can be determined for carcinogens, health considerations require that the exposure limits be kept as far as possible below the TRK and that the TRK value be gradually reduced. The limitation of exposure peaks is regulated as follows:

Short-term exposure limit:  $5 \times \text{TRK}$

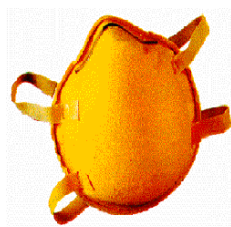
Short-term exposure duration: 15 min/average

Frequency per work shift: 5 times

Interval: 1 hour.

Report No. 35 1999, Deutsche Forschungsgemeinschaft.

## PERSONAL PROTECTION



continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 8 of 13

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

### EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

### HANDS/FEET

Wear general protective gloves: i.e. Disposable polythene gloves or Cotton gloves or Light weight rubber gloves, with Barrier cream preferably Safety footwear.

### OTHER

- Overalls.
- Eyewash unit.

## ENGINEERING CONTROLS

Use in a well-ventilated area or Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:
  - (a): particle dust respirators, if necessary, combined with an absorption cartridge;
  - (b): filter respirators with absorption cartridge or canister of the right type;
  - (c): fresh-air hoods or masks
- Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.

|  |  |
|--|--|
| Type of Contaminant:<br>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | Air Speed:<br>1-2.5 m/s (200-500 f/min.) |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).                                   | 2.5-10 m/s (500-2000 f/min.)             |

Within each range the appropriate value depends on:

|  |   |
|--|---|
| Lower end of the range<br>1: Room air currents minimal or favourable to capture<br>2: Contaminants of low toxicity or of | Upper end of the range<br>1: Disturbing room air currents<br>2: Contaminants of high toxicity |
|--|---|

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# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 9 of 13

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION ...

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nuisance value only

3: Intermittent, low production.

4: Large hood or large air mass in motion

3: High production, heavy use

4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

In confined spaces where there is inadequate ventilation, wear full-face air supplied breathing apparatus

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE

Coloured solid granules. Insoluble in water. No odour. Very slightly soluble in strong alkali. Soluble in hot strong alkali. Soluble in concentrated hydrofluoric acid. High heat and heat shock resistance. Fuses with many metal oxides. Changes crystal structure to tridymite above 870 C and to cristobalite above 1470 C; both have Exposure limits half (higher hazard) than that of quartz.

### PHYSICAL PROPERTIES

Solid.

Does not mix with water.

Sinks in water.

Molecular Weight: Not applicable

Melting Range (°C): Not available

Solubility in water (g/L): Immiscible

pH (1% solution): Not applicable

Volatile Component (%vol): Not available

Relative Vapour Density (air=1): Not applicable

Lower Explosive Limit (%): Not applicable

Autoignition Temp (°C): Not applicable

State: Divided solid

Boiling Range (°C): Not available

Specific Gravity (water=1): 2.6-2.7

pH (as supplied): Not applicable

Vapour Pressure (kPa): Not available

Evaporation Rate: Non volatile

Flash Point (°C): Not applicable

Upper Explosive Limit (%): Not applicable

Decomposition Temp (°C): Not available

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

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# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 10 of 13

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

##### SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments.  
The solid/dust is discomforting to the gastro-intestinal tract if swallowed

##### EYE

The dust may produce eye discomfort and abrasive eye inflammation.  
Prolonged exposure may cause tissue damage

##### SKIN

The material may be mildly discomforting and abrasive to the skin and may cause drying of the skin if exposure is prolonged.  
Open cuts, abraded or irritated skin should not be exposed to this material.  
The material may accentuate any pre-existing skin condition

##### INHALED

The dust may be discomforting and harmful to the upper respiratory tract and lungs and the material presents a hazard from repeated exposures over long periods.

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

Effects on lungs are significantly enhanced in the presence of respirable particles. Overexposure to respirable dust may produce wheezing, coughing and breathing difficulties leading to or symptomatic of impaired respiratory function.

Acute silicosis occurs under conditions of extremely high silica dust exposure particularly when the particle size of the dust is small. It differs greatly from classical silicosis both clinically and pathologically. The disease is rapidly progressive with diffuse pulmonary involvement developing only months after the initial exposure and causing deaths within 1 to 2 years. It is often complicated by an associated tuberculosis. The lungs of victims contain no classical silicotic nodules or only a few, microscopic abortive nodules, whereas the air spaces are diffusively filled and distended with silica-containing, lipoprotein paste in which degenerating and necrotic macrophages are sometimes discernible - the condition is sometimes described as alveolar lipoproteinosis.

The uptake of silica particles by macrophages and lysosomal incorporation, is followed by rupture of the lysosomal membrane and release of lysosomal enzymes into cytoplasm of the macrophage. This causes the macrophage to be digested by its own enzymes and after lysis the free silica is released to be ingested by other macrophages thus continuing initiate collagen formation in the lung tissue producing the characteristic nodule found in classical (chronic) silicosis.

#### CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts. Chronic symptoms produced by crystalline silicas included decreased vital lung capacity and chest infections. Lengthy exposure may cause silicosis a disabling form of pneumoconiosis which may lead to fibrosis, a scarring of the lining of the air sacs in the lung. Symptoms may appear 8 to 18 months after initial exposure. Smoking increases this risk. Classic silicosis is a chronic disease characterised by the formation of scattered, rounded or stellate silica-containing nodules of scar tissue in the lungs ranging from microscopic to 1.0 cm or more. The nodules isolate the inhaled silica particles and protect the surrounding normal and functioning tissue from continuing injury. Simple silicosis (in which the nodules are less than 1.0 cm in diameter) is generally asymptomatic but may be slowly progressive even in the absence of continuing exposure. Simple silicosis can develop in complicated silicoses (in which nodules are

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 11 of 13

## Section 11 - TOXICOLOGICAL INFORMATION ...

greater than 1.0 cm in diameter) and can produce disabilities including an associated tuberculous infection (which 50 years ago accounted for 75% of the deaths among silicotic workers). Crystalline silica deposited in the lungs causes epithelial and macrophage injury and activation. Crystalline silica translocates to the interstitium and the regional lymph nodes and cause the recruitment of inflammatory cells in a dose dependent manner. In humans, a large fraction of crystalline silica persists in the lungs. The question of potential carcinogenicity associated with chronic inhalation of crystalline silica remains equivocal with some studies supporting the proposition and others finding no significant association. The results of recent epidemiological studies suggest that lung cancer risk is elevated only in those patients with overt silicosis. A relatively large number of epidemiological studies have been undertaken and in some, increased risk gradients have been observed in relation to dose surrogates - cumulative exposure, duration of exposure, the presence of radiographically defined silicosis, and peak intensity exposure. Chronic inhalation in rats by single or repeated intratracheal instillation produced a significant increase in the incidences of adenocarcinomas and squamous cell carcinomas of the lung. Lifetime inhalation of crystalline silica (87% alpha-quartz) at 1 mg/m<sup>3</sup> (74% respirable) by rats, produced an increase in animals with keratinising cystic squamous cell tumours, adenomas, adenocarcinomas, adenosquamous cell carcinomas, squamous cell carcinoma and nodular bronchiolar alveolar hyperplasia accompanied by extensive subpleural and peribronchiolar fibrosis, increased pulmonary collagen content, focal lipoproteinosis and macrophage infiltration. Thoracic and abdominal malignant lymphomas developed in rats after single intrapleural and intraperitoneal injection of suspensions of several types of quartz. NOTE: Some jurisdictions require health surveillance be conducted on workers occupationally exposed to silica, crystalline. Such surveillance should emphasise • demography, occupational and medical history and health advice • standardised respiratory function tests such as FEV<sub>1</sub>, FVC and FEV<sub>1</sub>/FVC • standardised respiratory function tests such as FV<sub>1</sub>, FVC and FEV<sub>1</sub>/FVC • chest X-ray, full size PA view • records of personal exposure

### Mastershield Coloured Quartz

Not available. Refer to individual constituents.

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

#### SILICA CRYSTALLINE - QUARTZ:

##### TOXICITY

Inhalation (human)LCLo:0.3 mg/m<sup>3</sup>/10Y

Inhalation (human)TCLo:16 mppcf\*/8H/17.9Y

- Intermittent; focal fibrosis, (50 mg/m<sup>3</sup>/6H/71W

\* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).

WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS

NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

##### IRRITATION

Nil reported

(pneumoconiosis), cough, dyspnoea

- Intermittent; liver - tumours.

#### SODIUM METASILICATE:

##### TOXICITY

Oral (rat) LD50: 1153 mg/kg

Skin (human): 250 mg

Skin (rabbit): 250 mg/24h SEVERE

##### IRRITATION

250 mg/24h SEVERE

#### BALL CLAY:

##### TOXICITY

##### IRRITATION

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 12 of 13

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## Section 11 - TOXICOLOGICAL INFORMATION ...

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Oral (rat) TDLo: 590000 mg/kg Reproductive effector at very high doses.

C.I. PIGMENT BLUE 28:

No data of toxicological significance identified in literature search.

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## Section 12 - ECOLOGICAL INFORMATION

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No data for Mastershield Coloured Quartz.  
Refer to data for ingredients, which follows:

SILICA CRYSTALLINE - QUARTZ:

No data for silica crystalline - quartz.

SODIUM METASILICATE:

No data for sodium metasilicate.

BALL CLAY:

No data for ball clay.

C.I. PIGMENT BLUE 28:

No data for C.I. Pigment Blue 28.

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## Section 13 - DISPOSAL CONSIDERATIONS

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- Recycle wherever possible or consult manufacturer for recycling options.
  - Consult State Land Waste Management Authority for disposal.
  - Bury residue in an authorised landfill.
  - Recycle containers if possible, or dispose of in an authorised landfill.
- 

## Section 14 - TRANSPORTATION INFORMATION

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Shipping Name:

NONE

Dangerous Goods Class: None

UN/NA Number: None

ADR Number:

Packing Group: None

Labels Required:

Additional Shipping Information:

International Transport Regulations:

IMO: None

## HAZCHEM

None

continued...

# MASTERSHIELD COLOURED QUARTZ

ChemWatch Material Safety Data Sheet  
Issue Date: Fri 12-Oct-2001

CHEMWATCH 4604-28  
CD 2004/3 Page 13 of 13

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## Section 15 - REGULATORY INFORMATION

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### POISONS SCHEDULE

None

### REGULATIONS

No data available for C.I. Pigment Blue 28 (CAS: 1345-16-0).

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## Section 16 - OTHER INFORMATION

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