SAFETY DATA SHEET- SAPPHIRE PORCELAIN

According to regulation (EC) No 2020/878

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Valentine Clays Sapphire Porcelain

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

To produce ceramic objects.

1.3 Details of the supplier of the safety data sheet

Valentine Clays LTD

Valentine Way

Stoke on Trent

ST4 2FJ

t: +44 (0)1782 271200

e: sales@valentineclays.co.uk

w: www.valentineclays.co.uk

1.4 Emergency Telephone Number

+44 (0)1782 271200

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Products contain crystalline silica and therefore are classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008 and harmful according to criteria defined in Directive 67/548/EEC due to the potential to generate respirable dust. This could arise when the product is allowed to dry out. Particular attention should be given to controlling spillages.

Prolonged/repeated exposure to high concentrations of respirable free crystalline silica dust may cause delayed lung injury (silicosis) The WHO International Agency for Research on Cancer (IARC) evaluation for silica states “Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)” but additionally notes “carcinogenicity in humans was not detected in all industrial circumstances studies. Carcinogenicity may be dependent on inherent characteristics of crystalline silica or on external factors affecting its biological activity or distribution of polymorphs” (IARC Monograph, Volume 68, 1997).

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalations of respirable crystalline silica dust is silicosis. “There is sufficient information to conclude that then relative risk of lung cancer is increased in persons with silicosis (and, apparently, not 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). So, there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting existing regulatory occupational exposure limits and implementing additional risk management measures where required.

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as silicosis. In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

Cobalt aluminate contains cobalt oxide and is classed as an irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, inhalation or skin absorption.

2.2 Label Elements

Sapphire Porcelain – CAS No. 1332-58-7

WARNING STOT RE2

Hazard Statements:

H302 – Harmful if swallowed.

H317 – May cause an allergic skin reaction.

H335 – May cause respiratory irritation.

H373 - May cause damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary Statements:

P260 - Do not breathe dust

P285 - In case of inadequate ventilation wear respiratory protection

P333 – If skin irritation or rash occurs, get medical attention.

P501 - Dispose of contents/containers in accordance with local regulations

Section 3: Composition/information on ingredients

3.1 Mixtures

Component	CAS	EINECS	% Composition
Quartz	14808-60-7	2388784	-
Cobalt Aluminate	1333-88-6	2156104	-

Section 4: First Aid Measures

4.1 Description of first aid measures

After Inhalation- Remove patient to fresh air, loosen tight clothing and seek medical advice.

After Ingestion- Wash out mouth, drink plenty of water. DO NOT MAKE PATIENT VOMIT, seek medical attention.

After Eye Contact- Rinse immediately with plenty of water. If irritation persists, seek medical advice.

After Skin Contact- Wash affected areas with water, if irritation persists, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5: Firefighting Measures

5.1 Extinguishing Media

Suitable extinguishing media

This material is non-combustible and does not give off any harmful gases when involved with fires and will not react with other materials or fire extinguishing media.

Extinguishing media that must not be used for safety reasons

None known.

5.2 Special Hazards arising from the substance mixture

None known.

5.3 Advice for firefighters

Protective Equipment

Employ protective equipment commonly used in the event of a fire

Additional Information

No further relevant information available.

Section 6: Accidental Release Measures

6.1 Personal Precautions, protective equipment and emergency procedures

Eye protection should be worn to prevent splashes to eye

6.2 Environmental Precautions

Cobalt is hazardous to aquatic life so keep spills out of sewers and bodies of water. Contain the spill with inert material such as sand vermiculite or diatomite. Transfer the material to a container for disposal or recovery.

6.3 Methods and material for containment and cleaning up

Spillages of slop material should be contained with inert material such as sand, vermiculite or diatomite. Spillages of semi-dry or dry product should be removed by sweeping, preferably vacuum methods.

6.4 Reference to other sections

Treat the recovered material as prescribed in section 13 on waste disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Advice of Safe Handling

Spillage should be prevented during transfer operations and precautions taken to prevent splashing to body and eyes. When handling all materials observe good standards of industrial hygiene. Avoid swallowing, inhaling dust and eye/skin contact through the use of personal protective equipment. When dry material has to be handled, dust masks with normal protection factor (NPF) of 10 (EN149) should be worn. When using do not eat, drink or smoke. Wash hands before breaks and after work. Do not leave children unattended whilst using the product.

Advice on protection against fire and explosion

No special measure required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep packaging tightly closed. Slop material should be agitated during storage to prevent settling. Keep out of reach of children.

Further Information on Storage Requirements

No special requirements.

7.3 Specific end use(s)

No further relevant information available.

Section 8: Exposure Controls/ Personal Protection

8.1 Control Parameters

Exposure Limits

CAS No	Substance	ppm	mg/m³	Fibres/ml	Category	Origin
14808-60-7	Quartz (respirable crystalline silica)	-	0.1	-	TWA (8 hours)	WEL
		-		-	STEL (15 mins)	WEL

Additional Information

Silica only becomes airborne when the product is cured and powdered.

8.2 Exposure Controls

Occupational Exposure Controls

Dry materials should be used under conditions of local exhaust ventilation to avoid inhalation of dust. Where it is not possible, an appropriate dust mask must be worn.

Protective and Hygiene Measures

Other than suitable protective clothing, no special controls are needed in the case of slop or plastic materials other than cleaning any spillages before they dry out. Goggles may be used to prevent possible eye irritation and gloves if skin irritation is likely. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

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According to regulation (EC) No 2020/878

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

General Information

Form- Solid

Colour- Blue (Colours vary as pugged or pressed plastic clay body, or as a dry powder)

Odour- Almost odourless

pH- 5-9

Water Solubility

Changes in the physical state

Flash Point- No data available

Melting Point- 1000oc min

Boiling Point- No data available

Evaporation Rate- No data available

Flammability- Not flammable

Solubility- Insoluble in water

Oxidising Properties- Not oxidising

Burn Rate- No data available

9.2 Stability and Reactivity

No known hazardous reactions or decomposition products within the sphere of its intended use as a ceramic material.

9.3 Chemical Stability

No decomposition if stored normally.

9.4 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

9.5 Conditions to avoid

No dangerous reaction known under conditions of normal use.

9.6 Incompatible materials

No further relevant information available.

9.7 Hazardous decomposition products

No further relevant information available.

Section 11: Toxicological Properties

11.1 Information on toxicological effects

Mild irritant to skin and eyes, harmful if ingested due to presence of cobalt aluminate. Drying out of product will permit respirable particles of crystalline silica to become airborne with the risk of inhalation and retention in lungs. SEE SECTION 2.

Section 12: Ecological Information

12.1 Toxicity

In air, material is largely inert, being resistant to decomposition by weathering biological activity and further oxidation. However, cobalt aluminate is toxic to aquatic life.

12.2 Persistence and degradability

Not known.

12.3 Bio accumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Other adverse effects

No further relevant information available

Section 13: Waste Disposal

13.1 Waste treatment methods

Material should be treated as industrial waste and the procedures laid down in the Duty of Care- Environmental Protection Act observed. Consult local authority if necessary.

Section 14: Transport Information

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not restricted.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

No.

14.6 Special precautions for user

Not a hazardous material with respect to these transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

Section 15: Regulatory Information

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

Classification for Supply

Slop Material- Warning

Pugged/ Press Cake Clay- Warning

Semi- Dry Material- Warning

Dry Material- Warning

References

EH40- Workplace Exposure Limits 2005

Guidance Notes EH44- Dust General Principles of Protection

HS (G)53- Respiratory Protective Equipment

COSHH ACOP41- Pottery Production Guidance Note EH59

Reach Regulation (EC) No 1907/2006- Annex V7

CLP Regulation (EC) No 1272/2008

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

Section 16: Other Information

This data sheet is provided under CLP and REACH Regulation and is not intended to constitute an assessment of workplace risk associated with product(s) used as required under any other Health and Safety Regulation.

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

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