SAFETY DATA SHEET

Infosafe No.: LPU5S ISSUED Date: 09/08/2014

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

| Product Name KAOLIN | | | |
|-------------------------|---------------|-----|----|
| Company Name - SOLD 134 | \ | | |
| ART SPECTRUM | MANUFACTURING | PTY | UD |
| Address | | • | |
| 10 BOX 287 | | | |
| PO BOX 287 BRUNSMCK | | | |
| Emergency Tel. | | | |
| 1800 638 556 | | | |
| Telephone . | | | |
| 03 93879799 | | | |
| | | | |

Recommended Use

Used in ceramic body and glazes; as a general purpose filler in paints, adhesives, rubber and paper; refractories; electrode coatings.

Other Names

| Name | Product Code |
|--------------|--------------|
| CLAY GROUP 3 | |
| Q38 | |
| Q145 | |
| КО | |
| K15GM | |
| ADFLO Q145 | |
| Kaolin KO | |
| Clay K15GM | |
| WSB CLAY | |

2. HAZARD IDENTIFICATION

Hazard Classification

HAZARDOUS SUBSTANCE.

NON-DANGEROUS GOODS.

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission, Australia (NOHSC). Not Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Risk Phrase(s)

R49(1) May cause cancer by inhalation.

R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.

Safety Phrase(s)

S1 Keep locked up

S22 Do not breathe dust.

S38 If insufficient ventilation, wear suitable respiratory equipment.

S53 Avoid exposure - obtain special instructions before use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

| Name | CAS | Proportion |
|-----------------------------|--------------|------------|
| KAOLINITE | 1318- 74- 7 | 65- 95 % |
| Crystalline Silica (Quartz) | 14808- 60- 7 | 5- 10 % |
| Other minerals | Mixture | Balance |

Other Information

The respirable fraction of free crystalline silica is 10%.

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eye wash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding materials involved in the fire.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases.

Specific Hazards

This product is non-combustible. However heating can cause expansion or decomposition leading to violent rupture of containers.

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers.

Unsuitable Extinguishing Media

Do not use water jets.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled plastic containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Avoid exposure. Do not handle until all safety precautions have been read and understood.

Conditions for Safe Storage

Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Protect containers/bags from damage. Avoid generation of dust. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

No exposure value assigned for this material by Safe Work, Australia. However, the available exposure limits for ingredients are listed below:

Substance TWA mg/m³
Dust not otherwise specified 10
Quartz (respirable dust) 0.1

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Biological Limit Values

No biological limits allocated.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where dusts are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable particulate filter should be used. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i. e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Dark, off-white or white powder

Odour

Clay odour when moistened.

Decomposition Temperature

Not available

Melting Point

Not available

Boiling Point

Not applicable

Solubility in Water

Insoluble. Forms colloidal suspensions in water, with strong thixotropic properties.

Specific Gravity

2.63-2.69

pH Value

6.2-8.5 (20% aqueous slurry)

Vapour Pressure

Not applicable

Vapour Density (Air=1)

Not available

Evaporation Rate

Not available

Viscosity

Not applicable

Colour

Dark, off-white or white

Octanol/Water Partition Coefficient

Not available

Flash Point

Not applicable

Flammability

Non-combustible solid.

Auto-Ignition Temperature

Not applicable

Flammable Limits - Lower

Not applicable

Flammable Limits - Upper

Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions of storing and handling

Conditions to Avoid

Extremes of temperature and moisture

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Incompatible materials

Not available

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes.

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material.

Inhalation

Inhalation may cause the drying and irritation of the respiratory tract. Acute aspiration may cause coughing, sneezing and pulmonary edema.

Ingestion

Ingestion of large amounts may irritate the gastric tract causing nausea and vomiting. When ingested, material can swell several times in volume and can produce intestinal obstruction.

Skin

Skin contact may cause dryness. May cause mild irritation in the case of some individuals with sensitive skin.

Eve

Eye contact may cause mechanical irritation. May result in mild abrasion.

Chronic Effects

Toxic: danger of serious damage to health by prolonged exposure through inhalation. The product contains respirable free crystalline silica. Repeated exposure to respirable crystalline silica dust may lead to silicosis, a serious lung disease. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma.

Carcinogenicity

May cause cancer by inhalation. This substance is classified as a Category 1 Carcinogen according to National Occupational Health and Safety Commission (NOHSC). That is, there is sufficient evidence to establish a causal association between human exposure to this substance and the development of cancer. Category 1 Carcinogens are substances known to be carcinogenic to humans.

This product contains crystalline silica. Crystalline Silica (respirable size \leq 7 μ m) has been classified by the International Agency for Research on Cancer (IARC) as Carcinogenic to Humans (Group 1).

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data are available for this material.

Persistence / Degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

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14. TRANSPORT INFORMATION

Transport Information

Road and Rail Transport (ADG Code):

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

Marine Transport (IMO/IMDG):

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport (ICAO/IATA):

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

U.N. Number

None Allocated

Proper Shipping Name

None Allocated

DG Class

None Allocated

Packing Group

None Allocated

IMDG Marine pollutant

No

15. REGULATORY INFORMATION

Regulatory information

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

Not Scheduled

Hazard Category

Toxic

16. OTHER INFORMATION

Date of preparation or last revision of MSDS

MSDS reviewed: August 2014 Supersedes: August 2009 Contact Person/Point

Emergency Advice: ACOHS ERS - 1800 638 556 (24 Hours)

PLEASE NOTE:

The information contained herein is based on data available to Sibelco Australia Limited from both our own technical sources and from recognised published references and is believed to be both accurate and reliable. Sibelco Australia Limited has made no effort to censor nor to conceal deleterious aspects of this product. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are appropriate. It is therefore recommended that you undertake your own risk assessment in relation to your method of handling and proposed use of this product. Sibelco Australia Limited accepts no liability whatsoever for damage or injury caused from the use of this information or of suggestions contained herein.

References

Standard for the Uniform Scheduling of Medicines and Poisons.

Approved criteria for classifying hazardous substances [NOHSC:1008(2004)].

National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2011(2003)].

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH).