

Revision No. : 09

Issue Date : 05/04/2012 Page : 1 of 9

SAFETY DATA SHEET REFINED KAOLIN

1. <u>IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING</u>

1.1. Product Name Snobrite C7, C8, C9, B1, B3

1.2. Use of the Product

Main applications of Refined Kaolin - non-exhaustive list: Functional fillers, Ceramics, Extenders, Coatings, Compounds, Glass Fiber, Sealants, Adhesives.

1.3. Company / undertaking identification

Head office:

Sibelco Malaysia Sdn. Bhd. Unit 201D, Level 2, Tower D, Uptown 5, 5, Jalan SS21/39, Damansara Uptown, 47400 Petaling Jaya, Selangor.

Operational office:

Tinex Kaolin Corporation Sdn Bhd. Lot 11323, Mukim Bidor, Tanah Mas, P.O. Box 5, 35007 TAPAH, Perak, Malaysia.

1.4. Emergency telephone

+ 603 77299822

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS RN Number	Component	Proportion
1332-58-7	Kaolinite	90%

Sibelco Malaysia Sdn Bhd (117846-V)

Main Office

Unit 201D, Level 2, Tower D, Uptown 5, 5, Jalan SS21/39, Damansara Uptown, 47400 PTEALING JAYA, Selangor, Malaysia. Tel +603 77299822 Fax +603 77275969

Processing Plant



Revision No. : 09

Issue Date : 05/04/2012 Page : 2 of 9

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Short-Term (acute):

Eye Contact abrasion.

: Direct contact with dust may cause irritation by mechanical

Skin Contact

: Direct contact may cause irritation by mechanical abrasion.

Inhalation

: Dusts may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate

limits.

Ingestion

: Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation and blockage.

HAZARDS OVERVIEW: This product is a chemically inert, non-combustible mineral. Do not breathe dust. Long term exposure may cause silicosis. Silicosis is a respiratory disease, which can result in delayed, disabling and sometimes fatal lung injury. IARC and NTP have determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure. A single exposure will not result in serious adverse effects. See "Toxicological Information" in Section 11 for detailed information. See exposure limit presentation in Section 8 for further information.

Avoid creating dust when handling, using or storing. Use with adequate ventilation to keep exposure below recommended exposure limits.



Revision No. : 09

Issue Date : 05/04/2012 Page : 3 of 9

4. FIRST AID MEASURES

No actions to be taken and no special instructions for resources.

Eye contact : For direct contact, flush the affected eye with clean

water. If irritation develops, seek medical attention.

Skin contact : Usually no problems arise. Cleanse with mild soap and

water. If irritation develops, seek medical attention.

Ingestion : No treatment necessary.

Inhalation : Remove from source to fresh air. If symptoms occur seek

medical attention.

5. FIRE FIGHTING MEASURES

This product is chemically inert, non-combustible mineral.

Fully oxidized, will not burn. No hazardous releases in case of fire.

Compatible with all extinguishing media. Use any media that is appropriate for surrounding fire.

Firefighters shall wear self-contained breathing apparatus for fires indoors or in confined areas.



Revision No. : 09

Issue Date : 05/04/2012 Page : 4 of 9

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled:

Personal precautions : Avoid creating dust. In case of dust over

regulatory limits, wear a personal respirator in compliance with national

legislation.

Environment precautions : This product is generally non-toxic to

aquatic systems but may cause high

turbidity in storm water.

Refer to Section 13 for disposal

information.

Method for cleaning up : Avoid dry sweeping and use water spraying

or ventilated vacuum cleaning system to prevent dust formation. Water should be used with great care as it creates a slipping

hazard when mixed with this product.

7. HANDLING AND STORAGE

Handling:

Avoid dust formation.

Provide appropriate exhaust ventilation at place where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment in accordance with OSHA regulation.

Storage:

Dry covered conditions recommended.

Keep containers closed and store the bagged products in a way preventing accidental bursting.

Provide appropriate training to your employees about OSHA precautions.



Revision No. : 09

Issue Date : 05/04/2012 Page : 5 of 9

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit value:

Respect regulatory provisions for dust (total dust and respirable dust).

8.2. Exposure controls:

Avoid inhalation of dust, Protection recommended for workers who suffer from dermatitis skin.

Provide eye-wash facilities, Maintain good standard of industrial hygiene & Ensure that occupational exposure standards are maintained.

8.2.1. Occupational exposure controls

8.2.1.1. Ventilation

Provide appropriate exhaust ventilation and filtering at the places where dust can be generated. Control of exposure to dust must be accomplished as far as feasible by accepted engineering control measures.

8.2.1.2. Respiratory protection

In case of engineering controls are not feasible, wear a personal respirator in compliance with national legislation.

8.2.1.3. Eye protection

In case of exposure to dust over regulatory limits wear safety glasses with side-shields.

8.2.2. Environmental exposure controls

No special requirements. There is no reported ecotoxicity for refined kaolin, a naturally occurring substance widely spread on earth. Care should be given to reduce dust generation. Refer to Sections 7 and 13.



Revision No. : 09

Issue Date : 05/04/2012 Page : 6 of 9

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical

Appearance : white or off-white powder

Odour : none
Specific Gravity : 2.62 g/cm³
Grain Shape : platey
Soluble in water : negligible
Melting point : 1150 ~ 1250° C

Chemical

SiO2 45.0 ~ 60.0 % TiO2 0.47 ~ 0.70 % Al203 30.0 ~ 37.0 % Fe2O3 0.80 ~ 1.30 % CaO 0.03 ~ 0.05 % MgO 0.31 ~ 0.50 % K20 0.98 ~ 2.00 % Na2O 0.05 ~ 1.10 % LOI 10.0 ~ 13.9 %

10. STABILITY AND REACTIVITY

Chemically inert, no particular incompatibility

11. TOXICOLOGICAL INFORMATION

Not dangerous goods under IATA regulation.

Kaolin is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). The American Conference of Governmental Industrial Hygienists (ACGIH) lists kaolin as- Not Classifiable as a Human

Carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

This product contains less than 0.1% crystalline silica (quartz) based on testing using NIOSH method 7500.

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Revision No. : 09

Issue Date : 05/04/2012 Page : 7 of 9

12. ECOLOGICAL INFORMATION

Ecotoxicity : No adverse ecological effects are expected. May

affect turbidity of water if discharged in large quantities to lakes or streams. See Section 15,

Foreign Regulations

Mobility : This product is insoluble in water

Persistence and Degradability : This product is made from a naturally occurring,

abundant, innocuous mineral.

Bioaccumulative Potential : No data available. This product is not expected

to accumulate in biota.

13. DISPOSAL CONSIDERATION

Wastes from residues / unused products:

Can be land filled in compliance with local regulations. The material should be buried to prevent airborne respirable dust being emitted. Where possible recycling should be preferred to disposal. Use sealed receptacles / store rooms

14. TRANSPORT INFORMATION

No special precaution required under the regulation on transport of dangerous goods. This item is safe to transport by road, by air and by ship. Avoid dust spreading.



Revision No. : 09

Issue Date : 05/04/2012 Page : 8 of 9

15. REGULATORY INFORMATION

Malaysia Regulations:

Occupational Safety And Health Act, 1994 (ACT 514) Environmental Quality Act, 1974 (ACT 127) Factories And Machinery Act, 1967 (ACT 139)

North American Regulations:

Several states, provinces and territories specifically list kaolin and regulate dust exposure. USA: Alaska, Arizona, California, Idaho, Indiana, Massachusetts, Michigan, Minnesota, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Vermont, and Washington. Canada: Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Quebec, Saskatchewan, and Yukon. WHIMS classification: N/A (contains less than 0.1% crystalline silica. Mexico: see national exposure limits. For the most current regulatory information please contact the appropriate agencies in the state, province or territory where the product is used.

Foreign Regulations:

CAS# 1332-58-7 can be found in the following registries: AICS (Australia), China Inventory, DSL (Canada), ECL (Korea), EINECS (Europe), ENCS (Japan), PICCS (Philippines), SWISS (Swiss), ERMA IIC (New Zealand). German Water Classification - Annex 1: Non-Hazardous (ID No. 765)



Revision No. : 09

Issue Date : 05/04/2012 Page : 9 of 9

16. ADDITIONAL INFORMATION

Kaolin is a naturally occurring mineral with the following chemical formula - $\text{Al}_2\text{Si}_2\text{H}_4\text{O}_9$

R phrases:

R36/37, R68/20 Irritating to eyes and respiratory system. Harmful: possible risk of irreversible effects through inhalation.

S phrases:

S24/25, S37/39, S38 Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. In case of insufficient ventilation wear suitable respiratory equipment.

HMIS Hazard Classification:

Health 0 No Acute effects. Prolonged breathing of excess dust

without mask may affect lung capacity.

Flammability 0 Non-flammable Reactivity 0 Non-reactive

Personal Protection E Use dust mask in dusty conditions.

Training:

Workers should be trained in the proper use and handling of this product as required under applicable regulations.

Liability:

Such information is the best of Tinex Kaolin knowledge and belief accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness of such information for their own particular use.