

# MATERIAL SAFETY DATA SHEET

Identity: Limestone

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## SECTION I - PRODUCT AND COMPANY IDENTIFICATION

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**Product Names/Trade Names:** Stanley White Chalk

**Synonyms/Common Names:** Limestone - a natural mineral extracted from the earth.

**Manufacturer's Name:** Sainty International Group Jiangsu Machinery Imp. & Exp. Corp., Ltd.

**Emergency Telephone and Fax Number:** Sainty-JMIEC 86-25-2252023

**Date Prepared:** March 06,2000

**Date Revised:** N/A

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## SECTION II - IDENTITY INFORMATION AND COMPOSITION INFORMATION

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**Specific Chemical Identity:** Limestone (CAS#: 1317-65-3)

**Chemical Family:** Calcium Compound

**Principal components:**

| Components        | Wt. %  |
|-------------------|--------|
| CaCO <sub>3</sub> | 98-100 |
| MgCO <sub>3</sub> | 0-2    |

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

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**Specific Gravity (Water = 1):** 2.71

**Vapor Pressure (mm Hg):** N/A

**Melting Point:** N/A

|                                 |                        |
|---------------------------------|------------------------|
| <b>Vapor Density (Air = 1):</b> | N/A                    |
| <b>Evaporation Rate:</b>        | N/A                    |
| <b>Solubility in Water:</b>     | Insoluble              |
| <b>Appearance and Odor:</b>     | White powder, no odor. |

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## **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

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**Flash Point:** Non-flammable

**Extinguishing Media:** None required

**Flammable limits:** None

**Special Fire Fighting Procedures:** None

**Unusual Fire and Explosion Hazards:** Limestone is neither a fire nor an explosion hazard.

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## **SECTION V - REACTIVITY DATA**

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**Stability:** Stable under normal conditions.

**Condition to Avoid:** Avoid contact with acids and other incompatible and also excessive dust generation.

**Incompatibility (Materials to avoid):**

Calcium carbonate ignites on contact with fluorine. It is incompatible with acids, alum, and ammonium salts and mercury/hydrogen mixtures.

**Hazardous Decomposition or Byproducts:** Can produce calcium oxide if thermally oxidized.

**Hazardous Polymerization:** Will not occur.

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## SECTION VI - HEALTH HAZARD DATA

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**Route(s) of Entry:** Inhalation? Yes    Skin? Yes    Eye? Yes    Ingestion? Yes

**Health Hazards (Acute and Chronic):** Inhalation of dust may cause sneezing, coughing, and nose irritation. There are no known adverse health effects resulting from prolonged exposure to limestone. The abrasiveness of the material may cause skin irritation and eye irritation. The material may cause mild irritation of the gastrointestinal tract.

### **Signs and Symptoms of Exposure:**

**Inhalation:** Excessive sneezing or coughing.

**Eye Contact:** Mild irritation.

**Skin Contact:** Dryness and/or mild irritation.

**Ingestion:** Mild irritation.

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing chronic respiratory, skin, or eye diseases may be aggravated. Smoking aggravates the effects of exposure.

**Emergency and First Aid Procedures:** For the material in eyes and skin contact, wash/flush immediately with plenty of water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, and seek medical attention as needed. If a large amount of the material is ingested, and the person is conscious, give large quantities of water to induce vomiting and seek medical attention.

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## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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**Steps to be Taken in Case Material is Released or Spilled:**

**Spills:** For powdered materials, use dustless methods (vacuum) and place into closable container for disposal, or flush with water. Do not dry sweep. Water protective equipment specified below.

**Waste Disposal Method:**

Dispose in accordance with Federal, State, and Local regulations.

**Precautions to be Taken in Handling and Storing:**

Avoid breakage of bagged material or spills of bulk material. Store the material in a cool, dry area. See control measures in Section VIII.

**Other Precautions:**

Use dustless systems for handling, storage, and clean up. Use adequate ventilation and dust collection. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing which has become dusty. See also control measures in Section VIII.

Warn your employees (and your customers-users in case of resale) by posting and other means of the hazards.

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## **SECTION VIII - CONTROL MEASURES**

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**Respiratory Protection (Specify Type)**

When airborne exposure limits are surpassed, wear relevant government agency approved respiratory equipment. Choose the specific type respirator by consulting the respirator manufacturer.

**Ventilation:**

**Local Exhaust :**Use sufficient local exhaust to reduce the level of dust to the government regulated limitation.

**Mechanical**

See "Other Precautions" under Section VII.

**Protective Gloves**

Leather or impervious gloves.

**Eye Protection**

Wear protective shield (safety glasses) or dust-tight goggles.

**Other Protective Clothing or Equipment**

Optional

**Work/Hygienic Practices**

Avoid creating and breathing dust. See "Other Precautions" under Section VII.

USA government has various regulations on the exposure limits. These regulations are summarized in the following table for reference.

**Exposure Limits/Regulatory Information**

| Substance | Regulatory Agency | PEL – Permissible Exp. Limit – 8 hr. | TLV – Threshold Limit Value – 8 hr. TWA | STEL – Short Term Exp. Limit – 15 minutes | CEIL – Ceiling Exp. Limit – 15 minutes | REL – Recommended Exp. Limit – 8 hr. TWA |
|-----------|-------------------|--------------------------------------|---|---|--|--|
| Limestone | OSHA              | 15.00                                | N/A                                     | N/A                                       | N/A                                    | N/A                                      |
|           | MSHA              | 15.00                                | N/A                                     | N/A                                       | N/A                                    | N/A                                      |
|           | ACGIH             | N/A                                  | 10.00                                   | N/A                                       | N/A                                    | N/A                                      |
|           | NIOSH             | N/A                                  | N/A                                     | N/A                                       | N/A                                    | 10.00                                    |

Note: All values are in the unit of milligram per cubic meter.

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IS MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN. WE ACCEPT NO RESPONSIBILITY AND DISCLAIM ALL LIABILITY FOR ANY HARMFUL HEALTH EFFECTS THAT MAY BE CAUSED BY PURCHASE, RESALE, USE OR EXPOSURE TO OUR LIMESTONE PRODUCTS. CUSTOMERS-USERS OF THESE PRODUCTS MUST COMPLY WITH ALL APPLICABLE HEALTH AND SAFETY LAWS, REGULATIONS AND ORDERS.

# MATERIAL SAFETY DATA SHEET

**Identity:** Red chalk

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## SECTION I - PRODUCT AND COMPANY IDENTIFICATION

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**Product Names/Trade Names:** Stanley Red Chalk

**Synonyms/Common Names:** Red chalk – a mixture of natural occurred mineral limestone and iron oxide pigment.

**Manufacturer's Name:** Sainty International Group Jiangsu Machinery Imp. & Exp. Corp., Ltd.

**Emergency Telephone and Fax Number:** Sainty-JMIEC 86-25-2252023

**Date Prepared:** March 06,2000

**Date Revised:** N/A

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## SECTION II - INGREDIENTS

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Principal ingredients are limestone and hematite.

| Material   | Wt %  | CAS #     |
|--|-------|-----------|
| Limestone, CaCO <sub>3</sub>                           | 70-80 | 1317-65-3 |
| Hematite (iron oxide, Fe <sub>2</sub> O <sub>3</sub> ) | 20-30 | 1317-60-8 |

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

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**Specific Gravity (Water = 1):** 3.1 – 3.3

**Vapor Pressure (mm Hg):** N/A

**Melting Point:** N/A

**Vapor Density (Air = 1):** N/A

**Evaporation Rate:** N/A

**Solubility in Water:** 0.1%

**Appearance and Odor:** Solid reddish, no odor.

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## **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

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**Flash Point:** Non-flammable

**Extinguishing Media:** As appropriate for surrounding combustibles.

**Flammable limits:** None

**Special Fire Fighting Procedures:** Respiratory and eye protection required for fire fighting personnel.

**Unusual Fire and Explosion Hazards:** Product does not burn or support combustion. Not a fire or explosion hazard.

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## **SECTION V - REACTIVITY DATA**

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**Stability:** Stable under normal conditions.

**Condition to Avoid:** Avoid contact with acids and other incompatible and also excessive dust generation.

**Incompatibility (Materials to avoid):**

Calcium carbonate ignites on contact with fluorine. It is incompatible with acids, alum, and ammonium salts and mercury/hydrogen mixtures.

**Hazardous Decomposition or Byproducts:** Can produce calcium oxide if thermally oxidized.

**Hazardous Polymerization:** Will not occur.

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## **SECTION VI - HEALTH HAZARD DATA**

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**Route(s) of Entry:** Inhalation? Yes    Skin? Yes    Eye? Yes    Ingestion? Yes

**Health Hazards (Acute and Chronic):** Inhalation of dust may cause sneezing, coughing, and nose irritation. Excessive exposure above  $1\text{mg}/\text{m}^3$  can give mild pulmonary irritation. The abrasiveness of the material may cause skin irritation and eye irritation. The material may cause mild irritation of the gastrointestinal tract.

**Signs and Symptoms of Exposure:**

**Inhalation:** Excessive sneezing or coughing.  
**Eye Contact:** Mild irritation.  
**Skin Contact:** Dryness and/or mild irritation.  
**Ingestion:** Mild irritation. Not absorbed by the body.

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing chronic respiratory, skin, or eye diseases may be aggravated. Smoking aggravates the effects of exposure.

**Emergency and First Aid Procedures:** For the material in eyes and skin contact, wash/flush immediately with plenty of water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, and seek medical attention as needed. If a large amount of the material is ingested, and the person is conscious, give large quantities of water to induce vomiting and seek medical attention.

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## **SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

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**Steps to be Taken in Case Material is Released or Spilled:**

**Spills:** For powdered materials, use dustless methods (vacuum) and place into closable container for disposal, or flush with water. Do not dry sweep. Water protective equipment specified below.

**Waste Disposal Method:**

Dispose in accordance with Federal, State, and Local regulations.

**Precautions to be Taken in Handling and Storing:**

Avoid breakage of bagged material or spills of bulk material. Store the material in a cool, dry area. See control measures in Section VIII.

**Other Precautions:**

Use dustless systems for handling, storage, and clean up. Use adequate ventilation and dust collection. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing which has become dusty. See also control measures in Section VIII.

Warn your employees (and your customers-users in case of resale) by posting and other means of the hazards.

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**SECTION VIII - CONTROL MEASURES**

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**Respiratory Protection (Specify Type)**

When airborne exposure limits are surpassed, wear relevant government agency approved respiratory equipment. Choose the specific type respirator by consulting the respirator manufacturer.

**Ventilation:**

**Local Exhaust :**

Use sufficient local exhaust to reduce the level of dust to the government regulated limitation.

**Mechanical**

See "Other Precautions" under Section VII.

**Protective Gloves**

Leather or impervious gloves.

**Eye Protection**

Wear protective shield (safety glasses) or dust-tight goggles.

**Other Protective Clothing or Equipment**

Optional

**Work/Hygienic Practices**

Avoid creating and breathing dust. See "Other Precautions" under Section VII.

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# MATERIAL SAFETY DATA SHEET

**Identity:** Blue chalk

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## SECTION I - PRODUCT AND COMPANY IDENTIFICATION

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**Product Names/Trade Names:** Stanley Blue Chalk

**Synonyms/Common Names:** Blue chalk – a mixture of natural occurred mineral limestone and ultramarine pigment.

**Manufacturer's Name:** ??

**Emergency Telephone and Fax Number:** ??

**Date Prepared:** ??

**Date Revised:** N/A

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## SECTION II - INGREDIENTS

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Principal ingredients are limestone and ultramarine pigment.

| Material   | Wt %  | CAS #      |
|--|-------|------------|
| Limestone, CaCO <sub>3</sub>   | 70-80 | 1317-65-3  |
| Ultramarine (Sodium Alumino Sulphosilicate, Na <sub>6</sub> Al <sub>4</sub> Si <sub>6</sub> S <sub>4</sub> O <sub>20</sub> ) | 20-30 | 57455-37-5 |

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## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

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**Specific Gravity (Water = 1):** 2.60 – 2.64

**Vapor Pressure (mm Hg):** N/A

**Melting Point:** N/A

**Vapor Density (Air = 1):** N/A

**Evaporation Rate:** N/A

**Solubility in Water:** In soluble

**Appearance and Odor:** Fine blue powder, no odor.

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## **SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

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**Flash Point:** Non-flammable

**Extinguishing Media:** As appropriate for surrounding combustibles.

**Flammable limits:** None

**Special Fire Fighting Procedures:** In fires sustained by other combustible material, the product may undergo chemical change with the evolution of heat and toxic, irritant sulfur dioxide gas. Respiratory and eye protection required for fire fighting personnel.

**Unusual Fire and Explosion Hazards:** None

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## **SECTION V - REACTIVITY DATA**

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**Stability:** Stable under normal conditions up to 350°C.

**Condition to Avoid:** Avoid contact with acids and other incompatible and also excessive dust generation.

**Incompatibility (Materials to avoid):**

Calcium carbonate ignites on contact with fluorine. It is incompatible with acids, alum, and ammonium salts and mercury/hydrogen mixtures.

**Hazardous Decomposition or Byproducts:** Can produce calcium oxide if thermally oxidized. Contact with acids of ultramarine liberates hydrogen sulfide, a highly flammable toxic gas. At temperature above 400°C in the presence of air, an exothermic reaction can occur with an evolution of sulfur dioxide.

**Hazardous Polymerization:** Will not occur.

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## SECTION VI - HEALTH HAZARD DATA

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Route(s) of Entry: Inhalation? Yes    Skin? Yes    Eye? Yes    Ingestion? Yes

**Health Hazards (Acute and Chronic):** Inhalation of dust may cause sneezing, coughing, and nose irritation. Excessive exposure above  $1\text{mg}/\text{m}^3$  can give mild pulmonary irritation. The abrasiveness of the material may cause skin irritation and eye irritation. The material may cause mild irritation of the gastrointestinal tract.

**Signs and Symptoms of Exposure:**

**Inhalation:** Excessive sneezing or coughing.

**Eye Contact:** Mild irritation.

**Skin Contact:** Dryness and/or mild irritation.

**Ingestion:** Mild irritation. Not absorbed by the body.

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing chronic respiratory, skin, or eye diseases may be aggravated. Smoking aggravates the effects of exposure.

**Emergency and First Aid Procedures:** For the material in eyes and skin contact, wash/flush immediately with plenty of water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, and seek medical attention as needed. If a large amount of the material is ingested, and the person is conscious, give large quantities of water to induce vomiting and seek medical attention.

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## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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**Steps to be Taken in Case Material is Released or Spilled:**

**Spills:** For powdered materials, use dustless methods (vacuum) and place into closable container for disposal. Avoid contact with acids. Do not flush into

drains. In case of an accidental major discharge into drains, flush with copious amounts of water to dilute any acidic conditions which may prevail.

**Waste Disposal Method:**

Dispose in accordance with Federal, State, and Local regulations. It should not be washed into wastewater or drains. It should not be disposed of where there is a risk of contact with acids.

**Precautions to be Taken in Handling and Storing:**

Do not mix with acids. Avoid breakage of bagged material or spills of bulk material. Store the material in a cool, dry area.

**Other Precautions:**

Use dustless systems for handling, storage, and clean up. Use adequate ventilation and dust collection. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing which has become dusty. See also control measures in Section VIII.

Warn your employees (and your customers-users in case of resale) by posting and other means of the hazards.

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## **SECTION VIII - CONTROL MEASURES**

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**Respiratory Protection (Specify Type)**

When airborne exposure limits are surpassed, wear relevant government agency approved respiratory equipment. Choose the specific type respirator by consulting the respirator manufacturer.

**Ventilation:**

**Local Exhaust :**

Use sufficient local exhaust to reduce the level of dust to the government regulated limitation.

**Mechanical**

See "Other Precautions" under Section VII.

**Protective Gloves**

Leather or impervious gloves.

**Eye Protection**

Wear protective shield (safety glasses) or dust-tight goggles.

**Other Protective Clothing or Equipment**

Optional

**Work/Hygienic Practices**

Avoid creating and breathing dust. See "Other Precautions" under Section VII.

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