

THORO SYSTEM PRODUCTS
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MATERIAL SAFETY DATA SHEET

Form No.: MSDS-16-2
Date: 10/1/88 (rev.)

SECTION 1 NAME

Material Name:

THOROSEAL

This form covers all colors.

SECTION 2 INGREDIENTS	% wgt.	ACGIH	OSHA
		TLV (a)	PEL
Silica, crystalline quartz (CAS 14808-60-7)	40-50	0.1 mg/m ³ (respirable)	(b)
Calcium Hydroxide (lime) (CAS 1305-62-0)	1-5	5 mg/m ³	None
All other nuisance particulates (dusts) from organic or inorganic sources. No CAS Number. (Cement included in this category).	48-58	5 mg/m ³ (respirable) 10 mg/m ³ (total)	5 mg/m ³ (respirable) 15 mg/m ³ (total)

Ingredients not precisely identified are proprietary or nonhazardous.
Values are not product specifications. gt=greater than, lt=less than,
ca=approximately.

SECTION 3 PHYSICAL DATA

Boiling Point: No data available. All ingredients have extremely high
M.P. & B.P.

Vapor Pressure (mmHg at 20°C): Not applicable. Solid at all service
temperatures.

Vapor Density (air = 1): Not applicable.

pH: No data for this mixture. Ingredients are strongly alkaline when
mixed with water.

Specific gravity: No data for this mixture.

% Volatile by Volume: Not applicable.

Appearance and Odor: White, gray or pastel powdered solid. Color depends
on specific formula. No particular odor.

Solubility in water: Slight.

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point (and method): Not applicable. Product will not burn.

Autoignition temp.: Not applicable.

Flammable limits (STP): Not applicable.

Extinguishing media: Not applicable.

Special fire fighting protective equipment: Not applicable.

Unusual fire and explosion hazards: None.

SECTION 5 REACTIVITY DATA

Stability:

Stable. Product reacts (hydrates) at a slow, controlled rate when mixed with water releasing minimal heat. Not a hazardous reaction.

Incompatibility (Materials to avoid):

Strong oxidizing agents such as organic and inorganic acids. Acids will react with cement, lime and carbonates.

Hazardous decomposition products: None.

Hazardous polymerization: Will not occur.

SECTION 6 HEALTH HAZARD ASSESSMENT

General:

No toxicity information is available on this specific preparation; this health hazard assessment is based on information that is available on its components.

Ingestion:

No toxic effects are known to be associated with ingestion of this material. May cause irritation to the digestive tract if ingested.

Eye Contact:

This material can irritate and may burn eyes following direct contact. The aggregate particles may cause abrasions to the cornea.

Skin Contact:

Dryness, itching, rashes and burns can develop following contact with skin. Skin abrasions can occur if material is rubbed against the skin. Dermatitis and skin sensitization can develop after repeated and/or prolonged skin contact.

Skin Absorption:

This material is not absorbed through skin contact and no systemically toxic effects are known via this route.

Inhalation:

Product contains crystalline quartz ("free") silica. Repeated inhalation of silica in excess of the TLV over extended periods can result in irreversible fibrosis of the lungs (silicosis). Overexposure to dusts can irritate the respiratory tract and can cause damage to the mucous membranes of the upper respiratory tract. IARC has associated high exposure to crystalline silica with cancer in laboratory animals.

Other effects of overexposure:

No other adverse clinical effects are known to be associated with exposure to this material.

First Aid Procedures:

Skin: Rinse skin free of material with water to avoid abrasion of skin. DO NOT RUB until skin is free of material then wash thoroughly with soap and water. If redness, itching, burning or other symptoms develop or persist seek medical attention. Remove and decontaminate clothing and

Eyes: DO NOT RUB EYES. Rinse immediately with plenty of water for at least 15 minutes and consult a physician immediately.

Ingestion: Give one or two glasses of water to drink and refer to medical personnel .

Inhalation: Remove to fresh air. If cough, irritation, difficulty in breathing or other respiratory symptoms persist or develop consult a physician.

NOTE TO PHYSICIAN: Mucosal injury following ingestion of this material may contraindicate the induction of vomiting in the treatment of possible ingestion.

SECTION 7 SPILL OR LEAK PROCEDURES

Steps to be taken in case material is spilled or released:

Keep unnecessary people away. Follow personal protection procedures (Section 8) when cleaning up spills. Collect spilled powder by dustless methods and place in containers. If necessary, dike spills of mixed material with absorbent material and shovel into waste containers. Avoid generating dusts. Wet material may be slippery. Use caution to avoid falls.

Disposal Method:

Reuse powder or mixed material if uncontaminated. Discarded product and hardened mortar are non-hazardous wastes under RCRA (40 CFR, Part 261). Dispose of as nonhazardous waste in compliance with applicable regulations.

Container Disposal:

Empty containers may retain small amounts of residual product. Observe all hazard precautions and personal protection recommendations when handling empty containers. Dispose of as non-hazardous waste in compliance with applicable regulations.

SECTION 8 SPECIAL PROTECTION INFORMATION

TLV or Suggested Control Value:

No TLV assigned to this mixture. Minimize exposure in accordance with good hygiene practice. (See Sections 2, 10 for TLV's and PEL's).

Ventilation:

Use local exhaust when possible to keep exposure below applicable exposure limits for silica, portland cement, and nuisance dusts.

Respiratory protection (specify type):

Where exposure to dusts from this product may exceed the applicable exposure limits a MSHA-NIOSH approved respirator for the dust should be used.

Protective Clothing:

Gloves and protective clothing recommended to avoid skin contact.

Eye Protection:

Full faceshield or chemical tight goggles recommended to avoid splashing in eyes while handling, mixing, placing or as long as splash hazard exists. Safety glasses recommended if grinding, cutting, etc. of hardened material is required.

Other Protective Equipment:

Provide eyewash station or other suitable means of cleansing eyes and skin in emergencies.

SECTION 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS

Precautions to be taken in handling or storing:

Store in cool dry area off ground. Avoid contact with acids and other oxidizers. Minimize generation of dusts. Avoid skin and eye contact. Avoid breathing dusts. A sensitized individual should not be exposed to the product which causes sensitization.

SECTION 10 MISCELLANEOUS INFORMATION

FOOTNOTES:

(a) Source: Threshold Limit Values and Biological Exposure Indices for 1987-88., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 45211.

(b) PEL for silica, crystalline quartz:

For respirable dust in mg/m³: $\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2 + 2}$

For total dust in mg/m³: $\frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2 + 2}$

The information herein is given in good faith but no warranty, expressed or implied, is made.

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Signature:

Date: 10/1/88

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