

Safety Data Sheet

THOROSEAL

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Version: 2.1

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(30337949/SDS_GEN_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

2. Hazards Identification

Emergency overview

WARNING:

CONTAINS MATERIAL WHICH CAN CAUSE CANCER.

This product can contain a small amount of free respirable Crystalline (quartz) Silica which has been listed as a human carcinogen by NTP (Group 1) and IARC (Reasonably Anticipated to be a Human Carcinogen) and a Suspected Human Carcinogen by ACGIH (category A2).

MAY BE HARMFUL IF INHALED.

RISK OF SERIOUS DAMAGE TO EYES.

Can cause moderate irritation due to abrasive action.

In combination with water, repeated or prolonged dermal exposure can cause moderate to severe alkali burns.

Keep container tightly closed.

Avoid inhalation of dusts.

Avoid ingestion.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

State of matter: solid

Colour: various colours

Odour: earthy

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Product may present a nuisance dust hazard. Inhalation of dust may cause respiratory tract irritation, coughing and breathing difficulties.

Irritation / corrosion:

Skin contact causes irritation. May cause severe damage to the eyes.

Assessment other acute effects:

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Causes temporary irritation of the respiratory tract.

Sensitization:

Chromate in this product has been reduced. Sensitization due to chromate within stated shelf-life is unlikely.

Chronic toxicity:

Carcinogenicity: Based on available Data, the classification criteria are not met.

Contains a known carcinogen. This product contains crystalline silica (quartz).

Repeated dose toxicity: After repeated exposure the prominent effect is local irritation.

Reproductive toxicity: Based on available Data, the classification criteria are not met.

Teratogenicity: Based on available Data, the classification criteria are not met.

Genotoxicity: Based on available Data, the classification criteria are not met.

Signs and symptoms of overexposure:

Eye irritation, skin irritation, irritation of the mucous membranes

Potential environmental effects

Aquatic toxicity:

The product gives rise to pH shifts. Based on available Data, the classification criteria are not met.

Degradation / environmental fate:

Inorganic product which cannot be eliminated from water by biological purification processes. The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
14808-60-7	>= 30.0 - <= 60.0 %	crystalline silica
65997-15-1	>= 30.0 - <= 60.0 %	Cement, portland, chemicals
13397-24-5	>= 1.0 - <= 5.0 %	Gypsum (Ca(SO ₄).2H ₂ O)
1305-62-0	>= 1.0 - <= 5.0 %	Calcium dihydroxide
1317-65-3	>= 0.5 - <= 1.5 %	Limestone
13463-67-7	>= 0.5 - <= 1.5 %	Titanium dioxide

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. Remove contaminated clothing.

If inhaled:

After inhalation of dust. Keep patient calm, remove to fresh air. If difficulties occur: Obtain medical attention.

If on skin:

After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

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If swallowed:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor.

5. Fire-Fighting Measures

Flash point: The substance/product is non-combustible.
Flammability: not flammable

Suitable extinguishing media:

foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Product itself is non-combustible. Only the packaging materials can catch fire. The extinguishing agents normally used are sufficient.

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.
Product is not combustible or explosive.

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. The degree of risk is governed by the burning substance and the fire conditions. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions:

Avoid dust formation. Avoid contact with skin and eyes. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Cleanup:

Avoid raising dust.

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of. Pack in tightly closed containers for disposal.

For residues: Rinse with plenty of water.

7. Handling and Storage

Handling

General advice:

Avoid dust formation. The Cement contained in this product reacts alkaline when in contact with water or humidity. This may cause severe irritation of skin or mucous membranes. The humidity of the skin or mucous membranes is enough for this reaction. Prolonged direct contact to the dry product should be avoided therefore. Avoid inhalation of dusts. Avoid skin contact. Pour downwind and allow as little free fall as possible while emptying bags into equipment. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

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Protection against fire and explosion:

No special precautions necessary.

Storage

General advice:

Containers should be stored tightly sealed in a dry place.

Storage incompatibility:

General advice: Segregate from metals. Segregate from acids. Segregate from lyes. Segregate from oxidants. Segregate from foods and animal feeds.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

crystalline silica	OSHA	TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m3 Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/m3 Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
Cement, portland, chemicals	ACGIH	TWA value 0.025 mg/m3 Respirable fraction ;
	OSHA	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ;
	ACGIH	TWA value 1 mg/m3 Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.
Titanium dioxide	OSHA	PEL 15 mg/m3 Total dust ;
Calcium dihydroxide	ACGIH	TWA value 10 mg/m3 ;
	OSHA	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ;
Gypsum (Ca(SO4).2H2O)	ACGIH	TWA value 5 mg/m3 ;
	OSHA	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ;
Limestone	ACGIH	TWA value 10 mg/m3 Inhalable fraction ;
	OSHA	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ;

Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed.

Hand protection:

Chemical resistant protective gloves, Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Tightly fitting safety goggles (chemical goggles).

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Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

9. Physical and Chemical Properties

Form:	powder	
Odour:	earthy	
Colour:	various colours	
pH value:	approx. 12	(approx. 20 °C) (as aqueous suspension)
Melting temperature:	> 1,500 °C	
boiling temperature:		not applicable
Relative density:	2.70	
Bulk density:	2,700 kg/m ³ 168.6 lb/ft ³	
Solubility in water:		(20 °C) dispersible
Miscibility with water:		(20 °C) not soluble

10. Stability and Reactivity

Conditions to avoid:

Avoid dust formation. Avoid humidity.

Substances to avoid:

strong acids
strong bases, strong acids

Hazardous reactions:

The product is stable if stored and handled as prescribed/indicated.
Strong bases are formed on the addition of water.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Irritation / corrosion

Information on: Cement, portland, chemicals

Assessment of irritating effects:

Skin contact causes irritation. May cause severe damage to the eyes.

Information on: Calcium dihydroxide

Assessment of irritating effects:

Skin contact causes irritation. May cause severe damage to the eyes.

Repeated dose toxicity

Information on: crystalline silica

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Assessment of repeated dose toxicity:

Repeated inhalation exposure may affect certain organs. The substance may cause increase in lung mass and lung tissue changes after repeated inhalation.

This product may contain greater than 0.1% crystalline silica. Repeated exposure to high concentrations results in silicosis, a lung disease characterized by coughing, difficult breathing, wheezing, scarring of the lungs, and repeated, non-specific chest illnesses.

Carcinogenicity

Information on: crystalline silica

In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given by inhalation in high doses, a carcinogenic effect was observed. The substance and its compounds in the form of respirable dusts/aerosols classified by the German MAK commission as a category 1 carcinogen (substances that cause cancer to humans). A carcinogenic effect cannot safely be ruled out. The inhalation uptake of the alveolar fraction of the fine dust may cause damage to the lungs. The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen.

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NTP listed carcinogen

Information on: Titanium dioxide

IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

Experiences in humans:

Information on: crystalline silica

May cause silicosis.

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Degradability / Persistence

Biological / Abiological Degradation

Evaluation:

Experience shows this product to be inert and non-degradable.

Other adverse effects:

Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

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Container disposal:

Completely emptied packagings can be given for recycling.

14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

Registration status based on supplier confirmation

OSHA hazard category: IARC 1, 2A or 2B carcinogen; NTP listed carcinogen; Chronic target organ effects reported; Acute target organ effects reported; OSHA PEL established; ACGIH TLV established; Skin and/or eye irritant

EPCRA 311/312 (Hazard categories): Acute; Chronic

State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
MA, NJ, PA	14808-60-7	crystalline silica
MA, NJ, PA	65997-15-1	Cement, portland, chemicals
NJ, PA	13397-24-5	Gypsum (Ca(SO4).2H2O)
MA, NJ, PA	1305-62-0	Calcium dihydroxide
MA, NJ, PA	13463-67-7	Titanium dioxide

CA Prop. 65:

THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

16. Other Information

HMIS III rating

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Health: 2⁺ Flammability: 0 Physical hazard: 1

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

SDS Prepared by:

BASF NA Product Regulations

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SDS Prepared on: 2013/03/20

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