



MATERIAL SAFETY DATA SHEET
According to 1907/2006/EC, Article 31
In accordance with 453/2010 and 1272/2008

Issued 16-01-14

SECTION 1 – Identification Of The Substance/Mixture And Of The Company/Undertaking

1.1. Product identifier

Trade name: FLEX-C-MENT™ Color Hardener

1.2. Relevant identified uses of the substance or mixture and uses advised against

Ready-to-use colored surface hardener for coloring and hardening freshly poured concrete. Typically used to provide the base color for stamped concrete, it is applied as a dry shake over freshly leveled and floated concrete in light industrial, commercial, and residential areas.

1.3. Details of the supplier of the safety data sheet company

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Tel : +90 262 744 96 32
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1.4. Emergency telephone number : : +90 262 744 96 32 (Manufacturer)

In case of emergency contact toxicological information, emergency tel 112 (within Europe) or 911 (for USA and Canada). For other countries, use the built-in emergency number in your cell phone.

SECTION 2- Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with 1272/2008

Causes irritation (Category 2)

Causes irreversible eye damage (Category 1)

Specific organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)

Classification in accordance with 1999/45/EG

Irritant.

2.2. Label elements

Label information in accordance with 1272/2008

Hazard pictograms



Xi : Irritant

Signal words : Irritant

Hazard statements

H315 Causes skin irritation

H318 Causes serious eye damage

R36 irritating to eyes

R37 irritating to respiratory system

R38 irritating to skin

R43 may cause sensitization by skin contact

Classification in accordance with 1272/2008

Causes irritation (Category 2)

May cause respiratory irritation (Category 3 resp)

Classification in accordance with 1999/45/EG

Irritant.

Skin: (Acute) Exposure to dry Color Hardener may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Discomfort or pain cannot be relied upon to alert a person to hazardous skin exposure. (Chronic) Dry Color Hardener coming in contact with wet skin or exposure to wet Color Hardener may cause ore sever skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of chemical (caustic) burns. (Acute/Chronic) Some individuals may exhibit an allergenic response upon exposure to Color Hardener. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers

Inhalation: Excessive exposure to dust cause irritation nose and throat.

Eyes: Acute/Chronic) Exposure to airborne dust may cause immediate or delayed irritation or inflammation of the cornea. Eye contact by large amounts of dry powder or splashes of wet Color Hardener may cause effects ranging from moderate eye irritation to chemical burns or blindness.

Ingestion: (Acute/Chronic) Internal discomfort or ill effects are possible if large quantities are swallowed

Carcinogenicity: Color Hardener is not recognized as a carcinogen by the NTP, OSHA, or IARC. However, it may contain trace amounts of heavy metals recognized as carcinogens by these organizations. In addition, it also contains crystalline silica which IARC classifies as a known human carcinogen (Group I). The NTP, in its ninth Annual Report on Carcinogens, classified "silica crystalline (repairable)" as a known carcinogen.

2.3. Other hazards

Cement does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH (Regulation (EC) No 1907/2006).

When cement reacts with water, for instance when making concrete or mortar, or when the cement becomes damp, a strong alkaline solution is produced. Due to the high alkalinity, wet cement may provoke skin and eye irritation.

SECTION 3 - Composition/information on ingredients

This product consists of a heterogeneous mixture of Portland cement, sand and silica. The major compounds are:

	Cas No:	EC No:	Pre-Registration Number
Portland Cement	65997-15-1	266-043-4	05-2114741031-66-0000
CaSO4	7778-18-9	231-900-3	05-2114741032-64-0000
CaO	1305-78-8	215-138-9	05-2114741033-62-0000
MgO	1309-48-4	215-171-9	05-2114741035-58-0000
Silicon Di Oxide	69012-64-2	273-761-1	05-2114741037-54-0000
SIO2 - Silica Sand (quartz)	14808-60-7	238-878-4	05-2114682893-32-0000
Iron oxide pigments	20344-49-4	243-746-4	05-2115117488-43-0000
Iron oxide pigments	1309-37-1	215-168-2	05-2115117821-55-0000
Iron oxide pigments	1317-61-9	215-277-5	05-2115118310-67-0000
Additive 1	557-75-5	209-183-3	05-2114682910-44-0000
Additive 2	514-10-3	208-178-3	05-2114682914-36-0000
Additive 3	3586-55-8	222-720-6	17-2119912964-32-0000
Additive 4	147-71-7	205-695-6	05-2115013686-48-0000
Additive 5	471-34-1	207-439-9	05-2115014970-54-0000
Additive 6	1302-42-7	215-100-1	05-2115117674-48-0000

Due to the use of ingredients mined from the earth's crust, trace amounts of naturally occurring, potentially harmful constituents may be detected during analysis.

SECTION 4- First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms persist, call doctor/physician.

Upon breathing in

Let the injured person rest in a warm place with fresh air; If symptoms persist, call a doctor/physician.

Upon contact with the eyes

Do not rub the eyes.

Immediately rinse with lukewarm water for 15 - 20 minutes with eyes kept wide open; If symptoms persist, call a doctor/physician.

Upon skin contact

Remove all solid particles and flush with lots of water. Remove contaminated clothes.

If symptoms occur, contact a physician.

Upon ingestion

First rinse the mouth thoroughly with a lot of water and SPIT OUT the water. Then drink at least 1/2 liter of water and call a doctor/physician. Do NOT induce vomiting.

4.2. Indication of any immediate medical attention and special treatment needed

When contacting a physician, take this SDS with you.

SECTION 5- Fire-fighting measures

5.1. Extinguishing media

Not combustible

5.2. Special hazards arising from the substance or mixture

Cements are non-combustible and non-explosive and will not facilitate or sustain the combustion of other materials.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

SECTION 6 - Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not inhale dust and avoid contact with skin, eyes and clothes when cleaning up spill. Use recommended safety equipment, see section 8.

6.2. Environmental precautions

Avoid discharge into soil, water or air. Avoid discharge into sewers.

6.3. Methods and material for containment and cleaning up

Collect the spillage in a dry state if possible.

Dry product

Use cleanup methods such as vacuum clean-up or vacuum extraction (Industrial portable units, equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which do not cause airborne dispersion. Never use compressed air.

Alternatively, wipe-up the dust by mopping, wet brushing or by using water sprays or hoses (fine mist to avoid that the dust becomes airborne) and remove slurry.

If not possible, remove by slurring with water (see wet cement).

When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear the appropriate personal protective equipment and prevent dust from spreading.

Avoid inhalation of cement and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Section 13.

Wet product

Clean up wet cement and place in a container. Allow material to dry and solidify before disposal as described under Section 13.

6.4. Reference to other sections

See sections 8 and 13 for more details.

SECTION 7 – Handling and Storage

7.1. Precautions for safe handling

Avoid handling in a manner which will raise dust.

Do not eat, drink or smoke when using this product.

In dusty environment, wear dust mask and protective goggles.

Use protective gloves to avoid skin contact.

7.2. Specific end uses

No additional information for the specific end uses (see section 1.2).

SECTION 8 - Exposure Controls/Personal Protection

8.1. Exposure controls

Do not eat, drink or smoke when working with this product to avoid contact with skin or mouth.

Before starting to work with this product, apply a barrier creme and reapply it at regular intervals.

Immediately after working with this product or cement-containing materials, workers should wash or shower or use skin moisturisers.

Remove contaminated clothing, footwear, watches, etc. and clean thoroughly before re-using them.

Eye/face protection: Wear approved glasses or safety goggles according to EN 166 when handling dry or wet cement to prevent contact with eyes.

Skin protection: Use watertight, wear- and alkali-resistant protective gloves (eg nitrile soaked cotton gloves with CE marking) internally lined with cotton; boots; closed long-sleeved protective clothing as well as skin care products (eg barrier creams) to protect the skin from prolonged contact with wet cement. For the gloves, respect the maximum wearing time to avoid skin problems.

Respiratory protection: When a person is potentially exposed to dust levels above exposure limits, use appropriate respiratory protection. The type of respiratory protection should be adapted to the dust level and conform to the relevant EN standard, (e.g. EN 149, EN 140, EN 14387, EN 1827) or national standard.

SECTION 9 - Physical and Chemical Properties

Appearance/Odor: Gray, odorless

Physical State: Solid (powder mix with sand and silica)

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Ph (In Water): 12-13

Solubility in Water: Slightly (0.1%-1.0%) (ASTM D 1293-95)

SECTION 10 - Stability and Reactivity

10.1. Reactivity

When this product is mixed with water, it hardens to a stable substance, which is not reactive in normal environments.

10.2. Chemical stability

Dry product is stable if stored correctly (see section 7) and it is compatible with most other building materials. It must be stored dry. Contact with incompatible materials should be avoided. Wet product is alkaline and incompatible with acids, ammonium salts, aluminum and other non-noble metals.. The cement inside this product reacts with water and creates silicates and calcium hydroxide.

10.3. Possibility of hazardous reactions

This product does not cause hazardous reaction.

10.4. Conditions to avoid

Damp storage conditions may lead to formation of lumps and diminish the product quality.

10.5. Hazardous decomposition products

Does not decompose to hazardous substances.

SECTION 11 - Toxicological information

11.1. Information on toxicological effects

Acute effects

Not classified as an acutely toxic substance.

Skin corrosion/irritation

Cement in this product in contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion may cause severe burns.

Serious eye damage/irritation

Direct contact with cement in this product may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.

Respiratory or skin sensitisation

Some individuals may develop eczema upon exposure to wet cement dust, caused either by the high pH which induces irritant contact dermatitis after prolonged contact, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis.

The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of the two above mentioned mechanisms.

If the cement contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness of the chromate reduction is not exceeded, a sensitising effect is not expected.

There is no indication of sensitisation of the respiratory system.

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Cement dust may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits.

Overall, the pattern of evidence clearly indicates that occupational exposure to cement dust has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects.

STOT-repeated exposure

There is an indication of COPD. The effects are acute and due to high exposures. No chronic effects or effects at low concentration have been observed.

Based on available data, the classification criteria are not met.

Aspiration hazard

Not applicable

SECTION 12 – Ecological Information

12.1. Toxicity

The product is not hazardous to the environment. Ecotoxicology tests with Portland cement has proven insignificant toxicological effect. Therefore it has not been possible to establish values for LC50 og EC50. There are no indications for toxicity in the sediment phase. However, addition of large

quantities of concrete to water can increase the pH and therefore the concrete could be toxic for aquatic organisms under certain conditions.

12.2. Persistence and degradability

Not relevant as concrete is an inorganic material. No toxicity risk is present after the concrete has cured.

12.3. Bioaccumulative potential

Not relevant as concrete is an inorganic material. No toxicity risk is present after the concrete has cured.

12.4. Mobility in soil

Not relevant as concrete is an inorganic material. No toxicity risk is present after the concrete has cured.

12.5. Results of PBT and vPvB assessment

Not relevant as concrete is an inorganic material. No toxicity risk is present after the concrete has cured.

12.6. Other adverse effects

Not indicated

SECTION 13 - Disposal considerations

Product - product that has exceeded its shelf life

Shall not be used/sold other than for use in controlled closed and totally automated processes or should be recycled or disposed of according to local legislation or treated again with a reducing agent.

Product - unused residue or dry spillage

Pick up dry unused residue or dry spillage as is. Mark the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to "Product – after addition of water, hardened".

Product – slurries

Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (e.g. streams) and dispose of as explained below under "Product - after addition of water, hardened".

Product - after addition of water, hardened

Dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, concrete waste is not a dangerous waste.

Classification according to 2006/12

Recommended LoW-code: 10 13 14 Waste concrete and concrete sludge.

Recommended LoW-code: 17 01 01 Concrete.

Packaging

Completely empty the packaging and process it according to local legislation.

EWC entry: 15 01 01

SECTION 14 – Transport Information

Cementitious products are not covered by the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID), therefore no classification is required.

No special precautions are needed apart from those mentioned under Section 8.

14.1. UN number

Not classified as dangerous goods

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

SECTION 15 - Regulatory Information

Cement is a mixture according to REACH and is not subject to registration. Cement clinker is exempt from registration (Art 2.7 (b) and Annex V.10 of REACH). Silica sand is a naturally occurring substance and also exempt from REACH registration. All the other ingredients in this product are under dosage import band of 1 tone in a year to EU and their PreRegistration numbers are given as at Section 3..

SECTION 16 – Other Information

The data contained herein are furnished for information only and are believed to be reliable. However, DBS LTD does not assume responsibility for any results obtained by persons over whose methods DBS LTD has no control. It is the user's responsibility to determine the suitability of DBS's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of DBS's products. In light of the foregoing, DBS LTD specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of DBS LTD's products. DBS LTD further disclaims any liability for consequential or incidental damages of any kind, including lost profits.