SAFETY DATA SHEET (SDS)

FOR COMMON CEMENTS AND CEMENT PRODUCTS

Sephaku CEMENT
Powered By
DANGOTE CEMENT

FAST. STRONG. CONFIDENT.

CEMENT



SABS APPROVED

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SECTION 1

MAY 2025

CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer

Dangote Cement South Africa (Pty) Limited
t/a Sephaku Cement
Ground Floor, Block A, Southdowns Office Park
Cnr John Vorster Dr. & Karee St.
Irene X54, 0062
Telephone number:
+27 12 684 6326/ +27 12 684 6300
E-mail address: legal@sepcem.co.za

Manufacturing Plants

Sephaku Cement Delmas Factory
Off R50, Delmas, Mpumalanga, 2210

Sephaku Cement Aganang Plant
Farm Klein Westerford 78
Gelukspan Road, Lichtenburg, 2740
Telephone number:
+27 12 684 6326/ +27 12 684 6300
E-mail address: legal@sepcem.co.za

Name of Substance

Portland Cement & Portland Blended Cements
CAS # 65997-15-1
Portland cement and Portland blended cement are grey to off-white powders which are slightly soluble in water.

Synonyms
Cement, Cement Blends, Masonry Cement, Slag Cement, Fly Ash Cement, Silica Fume Cements,
Covered by the following standards:
Common cement standards SANS 50197-1 and masonry cement standards SANS 50413 and the cement extender standards SANS 50450, SANS 55167 and SANS 53263 for fly ash, GBFS (granulated blast-furnace slag) & silica fume respectively.

U.N. No.	No U.N. Number
Hazchem	Code awaited
NIOSH No.	W8770000(RTECS)



Product Names & Nomenclature

Sephaku 32	CEM II/B-L 32,5N CEM IV/B (V) 32,5N CEM II/B-M(L) 32,5R CEM IV/B (V) 32,5R CEM IV/A (V) 32,5R
Sephaku 42	CEM II/A-L 42,5N CEM II/B-L 42,5N CEM IV/A (V) 42,5N CEM II/A-V 42,5R
Sephaku 52	CEM I 52,5N
SepROAD	CEM II/B-L 32,5N CEM IV/B (V) 32,5N
Dangote Falcon	CEM II/B-L 32,5N CEM IV/B (V) 32,5N CEM II/B-M(L) 32,5R CEM IV/A (V) 32,5R CEM IV/B (V) 32,5R

Physical Description & Use

Portland Cement, Portland-composite Cement and Pozzolanic Cement are used as hydraulic binders for the production of concrete, mortar and plaster, and are sold in bulk and in bags.



Physical Properties

Relative Density (Water = 1)	2,3 – 3,2
Solubility in Water	Slightly soluble < 1%
Melting Point	> 1250 °C
Boiling Point	Not applicable > 1000 °C
Flammability	Not applicable
Fire Fighting Procedures	Not applicable
Explosiveness	Nil
Alkalinity	pH 7-13
Molecular Weight	Variable
OEL Total Inhalable (RL)	10 mg/m^3
OEL Respirable Dust	5 mg/m^3

Chemical Formula
Tri- and Di-Calcium Silicate, Tetra Calcium Alumino-Ferrite, Tri-Calcium Aluminate and Silicone Dioxide.

Packaging
Packed in 50 kg bags or transported and delivered in bulk tankers.

Other Characteristics

Stability	Stable
Incompatibility with Other Substances	Avoid Moisture
Hazardous Decomposition	Nil
Hazardous Polymerisation	Nil

SECTION 2

HAZARDS IDENTIFICATION

Hazards classification:
This product is classified under the Globally Harmonised System (GHS) for its potential hazards to health and the environment. The specific classification can vary depending on the composition and type of cement, but here are the general hazard classifications for cement:

Skin Irritation
- Category 2: Causes skin irritation. Prolonged exposure could lead to chemical burns if wet, and eventually to Contact Dermatitis.

Serious Eye Damage/Eye Irritation
- Category 1: Causes serious eye damage.
- Category 2: Causes eye irritation.

Skin Sensitisation
- Category 1: May cause an allergic skin reaction.

Specific Target Organ Toxicity
- Category 3: May cause respiratory irritation.

Labels and precautionary statements:
Precautionary Statements:
- **P260:** Do not breathe dust.
- **P280:** Wear protective gloves/protective clothing/eye protection/face protection.
- **P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- **P302+P352:** IF ON SKIN: Wash with plenty of water.



Signal Word: Danger



SECTION 3

COMPOSITION/INFORMATION ON INGREDIENTS

Compound Name	%	CAS No. (CAS = Chemical Abstract Services)
Tri-Calcium Silicate	< 70	12168-85-3
Di-Calcium Silicate	< 40	10034-77-2
Tri-Calcium Alumino-Ferrite	< 18	12068-35-8
Tri-Calcium Aluminate	< 15	12042-78-3
Calcium Sulphate	< 10	Various
Magnesium Oxide	< 5	1309-48-4
Calcium Oxide	0 - 5	1305-78-8
Crystalline Silica	< 0,2	14808-60-7
Chromates	< 0.005	Various

OHS ACT - EXPOSURE LIMITS

	TWA	SHORT-TERM
OEL - RL		**OEL - RL**
Compound Name	**ppm or mg/m³**	**ppm or mg/m³**
Portland Cement (CAS# 65997-15-1) Respirable dust Total dust	 5 mg/m³ 10 mg/m³	
Calcium Sulphate (Gypsum) Respirable dust Total dust	 5 mg/m³ 10 mg/m³	
Calcium Carbonate Respirable dust Total dust	 5 mg/m³ 10 mg/m³	
Magnesium Oxide	10 mg/m³	
Calcium Oxide	2 mg/m³	
Crystalline Silica Quartz Quartz respirable	 0,4 mg/m³ (%SiO_2+2)	0,05 mg/m³
Chromates	0,5 mg/m³ (CrO_3)/m³	

NOTE:
TWA = Time-weighted average exposure
OEL-RL = Occupational Exposure Limit – Recommended Limit for hazardous substances



SECTION 4

FIRST-AID MEASURES

Description of First-Aid Measures

Following Eye Contact:
Do not rub the eyes to prevent potential corneal damage caused by mechanical stress. If wearing contact lenses, remove them immediately. Tilt the head so the injured eye is facing downward, open the eyelid(s) wide, and flush the eye(s) with plenty of clean water to remove all particles. Avoid flushing particles into the uninjured eye. Seek immediate consultation with an occupational health specialist.

Following Skin Contact:
For dry cement, remove excess cement and rinse the affected area thoroughly with water. For wet cement, wash the skin with plenty of water to remove all traces of the material. Remove contaminated clothing, footwear, and accessories (watches, etc.), and clean them thoroughly before reuse. Seek medical attention for any signs of irritation or burns.

Following Inhalation:
Move the individual to fresh air immediately. If irritation persists or symptoms such as discomfort, coughing, or further irritation develop, contact a physician for further evaluation and treatment.

Following Ingestion:
Do not induce vomiting. If the person is conscious, rinse the mouth with water and have them drink plenty of water. Seek immediate medical attention for further guidance.

Most important symptoms and effects, both acute and delayed

Eyes:
Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.

Skin:
Cement may have an irritating effect on moist skin (due to sweat or humidity) after prolonged contact or may cause contact dermatitis after repeated contact. Prolonged skin contact with wet cement or wet concrete may cause serious burns because they develop without pain being felt (for example when kneeling in wet concrete even when wearing trousers).

Inhalation:
Repeated inhalation of dust of common cements over a long period of time increases the risk of developing lung diseases.

Environment:
Under normal use, common cement is not hazardous to the environment.

Indication of any immediate medical attention and special treatment

When contacting a physician, take this SDS with you.

SECTION 5

FIRE FIGHTING MEASURES

Flash Point	None	
Lower Explosion Limit	None	Common cements and blended cements are stable substances
Upper Explosion Limit	None	
Auto Ignition Temperature	Not Combustible	
Extinguishing Media	None Required	
Special Fire Fighting Procedures	None Required	
Hazardous Combustion Products	None	
Unusual Fire & Explosion Hazards	Portland Cement, Portland-composite Cement and Pozzolanic Cement are stable substances and will not decompose into hazardous by-products	

SECTION 6

ACCIDENTAL RELEASE & SPILLAGES

Portland & Portland Blended Cements

In the case of a spillage or the accidental release of cement powder, remove all people out of the immediate area where dust is still airborne and wait for the dust to settle before cleaning up operations to start. Cleaning must preferably be with industrial vacuum cleaners or with brooms; never use compressed air to clean cement spillages. Recovered material to be disposed of as per environmental rules and keep product out of storm water and sewer drains. Wetting during clean-up will cause cement to set. Personal Protective Equipment (PPE) should be worn during spill clean-up.

SECTION 7

HANDLING & STORAGE

Store clear of the ground, in a dry place and out of the wind and weather. If bagged, store at proper stacking heights. If stored in silos beware of bridging and sudden flow of powder (dangerous to people). If clothing is contaminated with cement dust wash thoroughly before reuse. Manual handling of bagged cement without due care and attention could result in personal injury. Keep a straight back and bend knees when lifting.



SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters and Exposure controls

Appropriate engineering controls

Use in well-ventilated areas to maintain airborne concentrations and ensure that exposure levels remain below occupational exposure limits. Implement measures to minimise dust generation and prevent dust dispersion, such as using dedusting systems. In addition, apply dry cleaning methods that do not result in airborne particles.

Skin

Prolonged exposure could cause severe damage to the skin and even dermatitis in severe cases. Personnel working with dry or wet cement should wear protective clothing, impervious footwear and gloves. To avoid contamination of the face and lips, wash hands before eating, drinking or smoking.





Inhalation

Avoid actions that cause dust to become airborne. Exposure over long periods of time could cause coughing and phlegm (since cement is caustic and can burn the respiratory tract). Use NIOSH / MHSA-approved (under 30 CFR 11) or NIOSH approved (under 42 CFR 84) respirators in poorly ventilated areas.



Eye Contact

Wear fully sealing goggles. Flush eyes with large volumes of water and seek immediate medical attention. Contact lenses must not be worn in dusty areas.



Back Strain

As cement is heavy, prevent back and neck injuries by using proper bending and lifting manoeuvres.

SECTION 9

PHYSICAL & CHEMICAL PROPERTIES

Form	Powder (solid)
Colour	Grey to off-white powder
Odour	No distinct odour
Melting Point	2,3 – 3,2
Density	Not applicable
Boiling Point	Not applicable
Explosive	Non-explosive
Flammability	Non-flammable
Solubility in Water	Negligible (< 1%). Reacts on mixing with water, forming an alkaline solution (pH > 11).
Flash point	Not applicable
Evaporation rate	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Auto-ignition temperature	Not applicable
Viscosity	Not applicable
Partition coefficient: n-octanol/water	Not applicable as is inorganic mixture

Explosive properties	Not applicable
Oxidising properties	Not applicable

SECTION 10

STABILITY & REACTIVITY

Stability	Chemically stable
Conditions to Avoid	Accidental contact with water e.g. during storage
Incompatibility	Cement is alkaline and therefore it will react with most acids, ammonium salts and phosphorous. Fly ash will react violently with bromine trifluoride, fluorine, hydrogen fluoride and phosphorus
Hazardous Decomposition	No spontaneous decomposition will occur and by adding water it will release Calcium Hydroxide (caustic)
Hazardous Polymerisation	Will not occur



SECTION 11

TOXICOLOGICAL INFORMATION

The following medical procedures should be made available to all persons who are exposed to Portland cement dust at potentially hazardous levels:

Initial Medical Examination
A complete history and physical examination should be carried out, the purpose being to detect pre-existing conditions that might place the exposed person at increased risk, and to establish a baseline for future health monitoring. Examination of the respiratory tract and eyes should be stressed. The skin should be examined for evidence of chronic disorders.
14" x 17" Chest roentgenogram: Portland cement mixtures have been reported to cause X-ray changes. Surveillance of the lungs is indicated.
FCV and FEV (1 sec) Portland cement mixtures may cause signs of respiratory impairment. Persons with impaired pulmonary function may be at risk from exposure. Periodic surveillance is indicated.

Periodic Medical Examination
The aforementioned medical examination should be repeated on an annual basis, except that an X-ray is necessary only when indicated by the results of pulmonary function testing or by signs and symptoms of respiratory disease.

Summary of Toxicology
Portland cement irritates eyes and may cause dermatitis. There are reports of increased incidents of bronchitis and chest X-ray changes after prolonged heavy exposure to undefined mixtures of cement and other dusts. Exposure to cement can cause chronic conjunctivitis, blepharitis and skin ulcers of the nose. Repeated and prolonged skin contact with cement can result in dermatitis of the hands, forearms and feet. This is a primary irritant dermatitis and may be complicated in some instances.

CONTACT PERSONS/INSTITUTIONS
Poison Information Centre Johannesburg General Hospital
011 495 5112 (24 Hours)

When contacting poison information centre, ask for information on:
Common cements, Portland cements, cement blends and cement extenders.

SECTION 12

ECOLOGICAL INFORMATION

Eco-Toxicity
No recognised unusual toxicity to plants and animals except in large volumes when suffocation can occur.

Aquatic Toxicity Relating to Fish & Daphnia Algae
Non-toxic in small quantities. Large quantities, especially in static water, will result in an increase in the pH and pH up to 12 may result in death of aquatic life.

Persistence and Degradability
Not relevant. After hardening, cement presents no toxicity risks.

Bioaccumulative Potential
Not relevant. After hardening, cement presents no toxicity risks.

Mobility in Soil
Not relevant. After hardening, cement presents no toxicity risks.

Other Adverse Effects
None

SECTION 13

DISPOSAL CONSIDERATIONS

Dispose of waste cement in accordance with local, municipal, provincial and national regulations. Since Portland cement is unstable when aerated, dry uncontaminated cement powder can be recovered and still be used. Bags must be disposed of on approved landfill sites or incinerated. Please dispose of packaging appropriately.



SECTION 14

TRANSPORT INFORMATION

Portland cement and cement blends are not hazardous cargo in terms of the International Maritime Dangerous Goods Code and as such do not have a UN number. Portland cement is not hazardous under National Road Trafic Act 93 of 1996 regulations and SANS 10228.

UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class(es)	No distinct odour
Packing group	Not applicable
Marine pollutant	Not applicable
Special precautions for user	Not applicable

SECTION 15

REGULATORY INFORMATION

Portland cement is classified as a hazardous chemical agent under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and the Regulations for Hazardous Chemical Agents, 2021, in South Africa. Consequently, this product must be handled, stored, communicated, and used in strict accordance with the requirements set forth by these regulations.

Recommended exposure limits are for dust concentrations only.

SECTION 16

OTHER INFORMATION

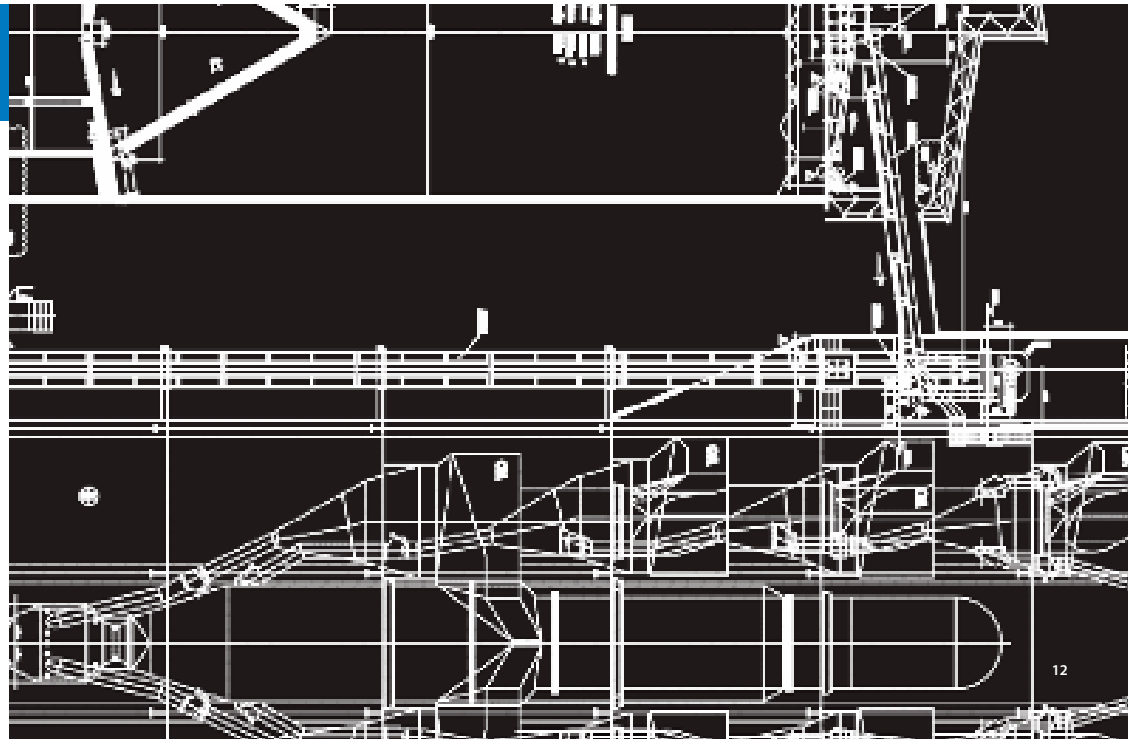
The product Portland cement and all its blended forms is used in the construction industry and should therefore be handled with care and preferably be used by knowledgeable people to use the product safely.

Inexperienced users should get proper training before using this product.

This Safety Data Sheet (SDS) cannot provide precautions for all anticipated uses and precautions are therefore limited to known proper uses of cement.

The data given in this SDS is based on current knowledge and experience. The purpose of this SDS is to describe the products in terms of their safety requirements. The data does not provide any warranty with regard to the product performance or other properties; these are covered by the cement specifications in accordance with which these products are produced.

For further information on these products,
Contact
0861 32 42 52 (business hours)
or Email
technical@sepcem.co.za.



BAG BY BAG, WE REWROTE THE STORY

