

# 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	GENERAL PURPOSE CEMENT
Supplier Name	NORTHERN CEMENT LIMITED T/A ADBRI CEMENT NT ABN 50 008 673 470
Address	PO Box 39631, Winnellie, NT 0821
Manufacturing Plant	Darwin Works, 810 Berrimah Road, East Arm, NT 0828
Telephone	08 0894 0600
Emergency	Bus Hrs 08 0894 0600 A/Hrs 08 0894 0607
Email	ntorders@adbri.com.au
Web Site	www.adbricementnt.com.au
Synonym(s)	TYPE GP, NORMAL PORTLAND CEMENT, GP CEMENT

**Use(s)** General Purpose Cement is used as a binder in structural concrete, masonry, renders, mortars and grouts. It is also used as a general binder in cementitious backfill in underground mines, in the manufacture of fibre cement products and in soil stabilisation in construction and civil engineering projects.

### 2. HAZARDS IDENTIFICATION

This product is classified as hazardous according to Safe Work Australia criteria. Not classified as a dangerous good by the criteria of the ADG code, IMDG or IATA.

#### **GHS Classifications**

Skin Corrosion/Irritation: Serious Eye Damage / Eye Irritation: Specific Target Organ Systemic Toxicity (Repeated Exposure): Category 2 Category 1 Category 2



#### **Hazard statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction
H318	Causes serious eye damage.
H373	May cause damage to lungs and respiratory tract through prolonged or repeated
	exposure.

#### **Prevention statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

#### **Response statements**

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

#### **Disposal statements** P501

Dispose of contents/container in accordance with relevant regulations.

UN No	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated





# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
PORTLAND CEMENT CLINKER	Not Available	85 – 95 %	65997-15-1
GYPSUM	CaSO <sub>4</sub> 2H <sub>2</sub> O	2 – 5 %	10101-41-4
LIMESTONE	CaCO <sub>3</sub>	0 – 7.5 %	1317-65-3
CLINKER KILN DUST	Not Available	0 – 2 %	65997-15-1
CRYSTALLINE SILICA	SiO <sub>2</sub>	0 - 1 %	14808-60-7
CHROMIUM (VI) HEXAVALENT	Cr <sup>6+</sup>	Trace	18540-29-9

#### 4. FIRST AID MEASURES

- **Eye** Flush thoroughly with flowing water for at least 15 minutes and seek medical attention if symptoms persist. If wet cement is splashed into the eyes flush thoroughly with flowing water for 15 minutes and seek urgent medical attention.
- **Inhalation** Remove from dusty area to fresh air. If symptoms persist, seek medical attention.
- SkinRemove heavily contaminated clothing immediately. Wash off skin thoroughly with water.<br/>A shower may be required. Seek medical attention for persistant irritation or burning of<br/>the skin
- **Ingestion** Rinse mouth and lips with water. Do not induce vomiting. Give water to drink to dilute stomach contents. If symptoms persist, seek medical attention.
- Advice to Doctor Treat symptomatically.
- First Aid Facilities Eye wash station.

#### Additional Information - Aggravated Medical Conditions

- **Inhalation** Over exposure resulting from prolonged and repeated inhalation of dust containing crystalline silica can cause bronchitis, silicosis (scarring of the lung.) It may also increase the risk of scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs) and lung cancer. Epidemiological studies have shown that smoking increases the risk of bronchitis, silicosis (scaring of the lung) and lung cancer in persons exposed to crystalline silica.
- **Skin** Prolonged and repeated skin contact with cement in wet concrete, mortars and slurries may result in irritant dermatitis or alkaline burns.
- **Eye** Irritating to the eye. If wet cement is splashed into the eye alkaline burns can cause permanent damage.

#### 5. FIRE FIGHTING

Flammability	Non-flammable. Does not support combustion of other materials.
Fire and Explosion	No fire or explosion hazard exists.
Extinguishing	Non-flammable; use suitable extinguishing agent for surrounding fire.
Hazchem Code	None.



### 6. ACCIDENTAL RELEASE MEASURES

- **Spillage** If spilt (bulk), contact emergency services if appropriate. Wear dust-proof goggles, PVC/rubber gloves, a Class P2 respirator (where an inhalation risk exists), coveralls and rubber boots. Clear area of all unprotected personnel. Prevent spill entering drains or waterways. Collect and place in sealable containers for disposal or reuse. Avoid generating dust.
- EmergencyFollow safety requirements for personal protection under Section 8 ExposureProceduresControls/Personal Protection.

## 7. HANDLING AND STORAGE

- **Storage** Store off the floor in the original bags in a cool, dry, well ventilated area, removed from excessive moisture and heat. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.
- **Handling** Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking, and smoking in contaminated areas.

# Property/ Refer to Section 13. Environmental

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation	Do not inhale dust/powder. Use with adequate ventilation. Where a dust inhalation hazard exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.
Exposure Standards	CALCIUM CARBONATE (1317-65-3) ES-TWA: 10mg/m <sup>3</sup> CHROMIUM (VI) HEXAVALENT(18540-29-9) ES-TWA: 0.05 mg/m <sup>3</sup> (Chromium VI compounds) GYPSUM (10101-41-4) ES-TWA: 10 mg/m <sup>3</sup> PORTLAND CEMENT (65997-15-1) ES-TWA: 10 mg/m <sup>3</sup> SILICA, CRYSTALLINE – QUARTZ (14808-60-7) ES-TWA: 0.05 mg/m <sup>3</sup> (Respirable Dust). Under Model WHS Law adopted in most Australian jurisdictions.
PPE	Wear dust-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Class P2 respirator. If there is potential for prolonged and/or excessive skin contact, wear coveralls. At high dust levels, wear a Class P3 respirator or a Powered Air Purifying Respirator (PAPR) with Class P3 filter.





# 9. PHYSICAL AND CHEMICAL PROPERTIES

Ap	pearance	
	P	

Odour pH Vapour Pressure Vapour Density Boiling Point Melting Point Evaporation Rate Odourless Approximately 12 Not Available Not Available Not Available > 1200°C Not Available

Fine grey powder

#### Solubility (water)

Specific Gravity % Volatiles Flammability Flash Point Upper Explosion Limit Lower Explosion Limit Autoignition Temperature Slight, hardens on mixing with water 2.8 to 3.2 Not Available Non Flammable Not Relevant Not Relevant Not Relevant Not Relevant Not Available

Bulk Density Particle Size 1200 - 1600 kg/m3 20 - 40% of particles are < 7  $\mu m$  (Respirable Range)

# **10. STABILITY AND REACTIVITY**

Chemical Stability	Chemically Stable
<b>Conditions to Avoid</b>	Keep free of moisture
Incompatible	Incompatible with oxidising agents (e.g. hypochlorites), ethanol, acids (e.g. hydrofluoric acid)
Materials	and interhalogens (e.g. chlorine trifluoride). Water contact may increase product
Decomposition Products	Unlikely to evolve toxic gases when heated to decomposition.

### Hazardous Reactions None

## **11. TOXICOLOGICAL INFORMATION**

Acute Toxicity	No known toxicity data available for this product.			
Еуе	Irritant upon contact with powder/dust. Over exposure may result in pain, redness, corneal burns, and ulceration with possible permanent damage.			
Inhalation	Slightly corrosive. Irritating to the respiratory system, causing coughing and sneezing. Over exposure may result in severe mucous membrane irritation and bronchitis. Hexavalent chromium is reported to cause respiratory sensitisation, however due to the trace amount present, a hazard is not anticipated under normal conditions of use. Crystalline silica can cause silicosis (lung disease) with chronic over exposure, however due to low levels present and product application, adverse health effects are not anticipated.			
Skin	Irritating to the skin. Prolonged and repeated contact with powder or wetted form may result in skin rash, dermatitis, and sensitisation.			
Ingestion	Slightly corrosive. Ingestion may result in burns to the mouth and throat, with vomiting and abdominal pain. Due to product form, ingestion is not considered a likely exposure route.			
Mutagenicity	Insufficient data available for this product to classify as a mutagen.			
Carcinogenicity	General Purpose Cement is not classified as a carcinogen by NOHSC. Crystalline silica and hexavalent chromium compounds are classified as carcinogenic to humans (IARC Group 1), however due to low levels present and product application, the criteria for classification is not met.			



# **12. ECOLOGICAL INFORMATION**

**Toxicity** Product forms an alkaline slurry when mixed with water. This product is non-toxic to aquatic life forms when present in cured solid form.

Persistence & Product is persistent and would have a low degradability. Degradability

**Mobility in soil** A low mobility would be expected in a landfill situation.

#### **13. DISPOSAL CONSIDERATIONS**

Waste DisposalReuse or recycle where possible. Alternatively, ensure product is covered with moist soil<br/>to prevent dust generation and dispose of to an approved landfill site. Contact the<br/>manufacturer for additional information.

**Legislation** Dispose of in accordance with relevant local legislation. Keep out of sewer and stormwater drains.

## **14. TRANSPORT INFORMATION**

Not classified as a dangerous good by the criteria of the ADG Code.

Transport is by rail or road in bulk or bag form.

Drivers of trucks transporting bagged product should ensure that the bags are properly restrained.

Shipping Name	None Allocated				
UN No	None Allocated	Hazchem Code	None Allocated	Pkg Group	None Allocated
DG Class	None Allocated	Subsidiary Risk(s)	None Allocated	EPG	None Allocated

### **15. REGULATORY INFORMATION**

PoisonA poison schedule number has not been allocated to this product using the criteria in theScheduleStandard for the Uniform Scheduling of Drugs and Poisons (SUSDP).AICSAll chemicals listed on the Australian Inventory of Chemical Substances (AICS).

#### **16. OTHER INFORMATION**

Additional Information CEMENT CONTACT DERMATITIS: Individuals using wet cement, mortar, grout, or concrete could be at risk of developing cement dermatitis. Symptoms of exposure include itchy, tender, swollen, hot, cracked, or blistering skin with the potential for sensitisation. The dermatitis is due to the presence of soluble (hexavalent) chromium.

IARC – GROUP 1 – PROVEN HUMAN CARCINOGEN. This product contains an ingredient for which there is sufficient evidence to have been classified by the International Agency for Research into Cancer as a human carcinogen. The use of products known to be human carcinogens should be strictly monitored and controlled.

RESPIRATORS: In general, the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES: The Recommendation for protective equipment contained within this SDS report is provided as a guide only. Factors such as

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method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare an SDS report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

	ABBREVIATIONS: mg/m <sup>3</sup> - Milligrams per cubic metre ppm - Parts Per Million ES-TWA - Exposure Standard - Time Weighted Average CNS - Central Nervous System NOS - Not Otherwise Specified pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline. CAS# - Chemical Abstract Service Number - used to uniquely identify chemical compounds. IARC - International Agency for Research on Cancer.
Report Status	This document has been compiled by Northern Cement Limited, the manufacturer of the product and serves as the manufacturer's Safety Data Sheet.
	While the information in this Safety Data Sheet has been prepared in good faith, Northern Cement Limited does not warrant that the information is accurate, complete, or up to date.
Contact Point	For further information on this product contact:
	Telephone: Office hours 08 8984 0600 After hours 08 8984 0607 Web site: <u>www.adbricementnt.com.au</u>
Advice Note	The information in this document is believed to be accurate. Please check the currency of this SDS by contacting:
	08 8984 0600 or
	www.adbricementnt.com.au
	<ul> <li>Each user of any information, or any product referred to, in this Safety Data Sheet must:</li> <li>determine whether the information or product is suitable for their purpose;</li> <li>assess and control any risks associated with the information or product; and</li> </ul>
	obtain professional advice in relation to the use of the information or product.
	<ul> <li>To the extent permitted by law, Northern Cement Limited:</li> <li>excludes all representations, warranties, and guarantees in relation to any information in this Safety Data Sheet; and</li> </ul>
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savings, production, business, opportunity, access to markets, goodwill, reputation, publicity, or use) arising from any use of or reliance on any information in this Safety Data Sheet.