CALCIUM CARBONATE

VWR International, Pty Ltd

Chemwatch:	10063	Print Date:	15/11/2013
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Safety Data Sheet according to WHS and ADG requirements		S.GHS.AUS.EN	

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name:	CALCIUM CARBONATE
Chemical Name:	calcium carbonate
Synonyms:	Bell Mine pulverized limestone, Betocarb 1,10,12, CaCO3, Cal-sup, Calc. Carb., Calcii Carbonas, Calcimax, Calcium Carbonicium, Caltrate, Circal 60/16, Y Grade, 600, 1000, T Grade, Circals 60/16 Y Grade 1000 13/3C T Grade Microfine DD-F ABGRIT SELGRIT, Creta Preparada marl, Hakuenka-TDD, Limestone Microfine, Y Grade, T Grad, DD, DD135 PF, Abgrit, Selgrit, F70, Superfine, Agricultural Grade, Omyacal 50, Omyacal 70, Omyacal 12, Road Base, 6mm, Moonglow Topping (10 mm), Limestone 60/16, Marble Chips (0,00,000), Minacarb grades, Omyacarb 1, 1T, 2, 2T, 5, 8, 10, 15, 20, Omyacarb 1,2,5,8,10,15,20,40,50, Omyacarb 40 1-GE 1T-GE 2-GE 2T-GE 5-GE 10-GE 20-GE 40-GE, Portland stone, Sohnhofen stone, Sonedust, Superfine F70 Agricultural Grade Stonedust Omyacal 12 70 pool dust, White Pool Dust, Whiting, [CAS RN: 15634-14-7], agricultural limestone, agstone, aragonite, calcite, calcium carbonate hydrate, carbonic acid calcium salt, chalk, garden lime, ground limestone, marble chips, precipitated chalk, prepared chalk, structural limestone, travertine, vaterite
Proper shipping name:	Not Applicable
Chemical formula:	C-O3.Ca|CaCO3
Other means of identification:	Not Available
CAS number:	471-34-1

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

Relevant identified uses:	Available as B.P. grade, which has been heat sterilised at 160C for 1 hour, to destroy bacteria present in as mined material. Used medicinally in antacids, calcium supplements, tabletting filler. Component of tooth powder. Pure grades used as Food Additive 170 for texturing and as carrier.

Details of the supplier of the safety data sheet

Registered company name:	VWR International, Pty Ltd
Address:	Unit 1/31 Archimedes Place 4172 QLD Australia
Telephone:	61 7 3009 4100 ; 1300 727 696
Fax:	61 7 3009 4199 ; 1300 135 123
Website:	http://au.vwr.com
Email:	csaus@au.vwr.com

Emergency telephone number

Association / Organisation:	Not Available
Emergency telephone numbers:	61 7 3009 4100 ; 1300 727 696
Other emergency telephone numbers:	61 7 3009 4100 ; 1300 727 696

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

ChemWatch Hazard Ratings

		MinMax
Flammability	0	
Toxicity	0	
Body Contact	3	
Reactivity	0	
Chronic	2	

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule:	None

GHS Classification[1]:

STOT - SE (Resp. Irr.) Category 3, Skin Corrosion/Irritation Category 2, Serious Eye Damage Category 1

Legend:*1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI*

Label elements

GHS label elements

Signal word:	**DANGER**

Hazard statement(s):

H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation

Precautionary statement(s): Prevention	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s): Response	
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P310	Immediately call a POISON CENTER/doctor/physician/first aider
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P321	Specific treatment (see advice on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s): Storage	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary statement(s): Disposal	
(null)	(null)
P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration

SECTION 3 Composition / information on ingredients

Substances

CAS No	%[weight]	Name
471-34-1	>95	calcium carbonate

Mixtures

See section above for composition of Substances

SECTION 4 First aid measures

Description of first aid measures

Eye Contact:

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact:

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

Inhalation:

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

Ingestion:

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility:

None known.

Advice for firefighters

Fire Fighting:

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.

Fire/Explosion Hazard:

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

&Decomposition may produce toxic fumes of:

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Minor Spills:

- Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.

Major Spills:

Moderate hazard.

- **CAUTION**: Advise personnel in area.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

Other information

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container:

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

Storage incompatibility:

Calcium carbonate:

- is incompatible with acids, ammonium salts, fluorine, germanium, lead diacetate, magnesium, mercurous chloride, silicon, silver nitrate, titanium.

Contact with acid generates carbon dioxide gas, which may pressurise and then rupture closed containers

- Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride.

Package Material Incompatibilities:

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	calcium carbonate	Calcium carbonate	10 (mgm3)	Not Available	Not Available	This value is for inspirable dust containing no asbestos and < 1% crystalline silica (see Chapter 14)

Emergency Limits

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
calcium carbonate	15(ppm)	30 / 45(ppm)	500 / 75(ppm)	500 / 350(ppm)

Ingredient	Original IDLH	Revised IDLH
CALCIUM CARBONATE	Not Available	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.

Personal protection

Eye and face protection:

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task.

Skin protection:

See Hand protection below

Hand protection:

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and
has to be observed when making a final choice.

Body protection:

See Other protection below

Other protection:

- Overalls.
- P.V.C. apron.
- Barrier cream.

Thermal hazards:

Recommended material(s):

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".
The effect(s) of the following substance(s) are taken into account in the
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Not Available

Material	CPI

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion

Respiratory protection:

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	- -	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3 Air-line*	- -
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance

White odourless powder; colourless crystals. Very slightly soluble in water. More soluble in slightly acid rain water. Dissolves in acids generating carbon dioxide gas.

Physical state	Divided Solid	**Relative density (Water = 1)**	2.7-2.95
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not applicable
pH (as supplied)	Not applicable	**Decomposition temperature**	>825
Melting point / freezing point (°C)	825	**Viscosity (cSt)**	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	100.1
Flash point (°C)	Not Available	**Taste**	Not Available
Evaporation rate	Not applicable	**Explosive properties**	Not Available
Flammability	Not Available	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not applicable	**Volatile Component (%vol)**	Nil
Vapour pressure (kPa)	Not applicable.	**Gas group**	Not Available
Solubility in water (g/L)	Immiscible	**pH as a solution(1%)**	8
Vapour density (Air = 1)	Not applicable.		

SECTION 10 Stability and reactivity

Reactivity:

See section 7

Chemical stability:

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Possibility of hazardous reactions:

See section 7

Conditions to avoid:

See section 7

Incompatible materials:

See section 7

Hazardous decomposition products:

See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled:

Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.

Ingestion:

The material has **NOT** been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.

Skin Contact:

The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either

- produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or
- produces significant, but moderate, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.

Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic).

Eye:

When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.

Chronic:

Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
Pure calcium carbonate does not produce pneumoconiosis probably being eliminated from the lungs slowly by solution.
As mined, unsterilised particulates can carry bacteria into the air passages and lungs, producing infection and bronchitis.

TOXICITY	IRRITATION
calcium carbonate	
Oral (Rat) LD50: 6450 mg/kg	Eye (rabbit): 0.75 mg/24h - SEVERE
	Skin (rabbit): 500 mg/24h-moderate
Not Available	Not Available

* Value obtained from manufacturer's msds
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

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Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

Acute Toxicity:	Not Applicable	**Carcinogenicity:**	Not Applicable
Skin Irritation/Corrosion:	Skin Corrosion/Irritation Category 2	**Reproductivity:**	Not Applicable
Serious Eye Damage/Irritation:	Serious Eye Damage Category 1	**STOT - Single Exposure:**	STOT - SE (Resp. Irr.) Category 3
Respiratory or Skin sensitisation:	Not Applicable	**STOT - Repeated Exposure:**	Not Applicable
Mutagenicity:	Not Applicable	**Aspiration Hazard:**	Not Applicable

CMR STATUS

SECTION 12 Ecological information

Toxicity

Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air. Once released to surface waters and moist soils their fate depends on solubility and dissociation in water. Environmental processes (such as oxidation and the presence of acids or bases) may transform insoluble metals to more soluble ionic forms. Microbiological processes may also transform insoluble metals to more soluble forms.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal:

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate:

SECTION 14 Transport information

Labels Required:

Marine Pollutant: NO

HAZCHEM:

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

calcium carbonate(471-34-1) is found on the following regulatory lists

"CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","International Numbering System for Food Additives","OECD List of High Production Volume (HPV) Chemicals","Australia High Volume Industrial Chemical List (HVICL)","International Council of Chemical Associations (ICCA) - High Production Volume List","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","Australia Inventory of Chemical Substances (AICS)","Australia Exposure Standards","GESAMP/EHS Composite List - GESAMP Hazard Profiles","Australia Drinking Water Guideline Values For Physical and Chemical Characteristics","FisherTransport Information","Sigma-AldrichTransport Information","Acros Transport Information","IMO IBC Code Chapter 17: Summary of minimum requirements","IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk","Australia Quarantine and Inspection Service List of chemical compounds that are accepted solely for use at establishments registered to prepare meat and meat products for the purpose of the Export Control Act 1982","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)"

SECTION 16 Other information

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.