UNIMIN TALC

CHEMWATCH
Material Safety
Data Sheet

Issue Date: Fri 23-Feb-2001
CHEMWATCH 56835
CD 2003/4

IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS ACCORDING TO WORKSAFE AUSTRALIA CRITERIA.
Not considered a dangerous substance according to directive 67/548/EEC, point 4; and not hazardous according to OSHA 29 CFR 1910.1200 (USA).

SUPPLIER

Company: Sigma-aldrich Pty Ltd
Address:
Unit 2, 14 Anella Ave
Castle Hill
NSW, 2154
AUS
Telephone: (+61 2) 9841 0555
Fax: 02 9841 0500

Company: Unimin Australia Ltd
Address:
49-55 Woodlands Drive
Braeside
VIC, 3195
AUS
Telephone: (+61 3) 9586 5400
Fax: 03 9586 5411

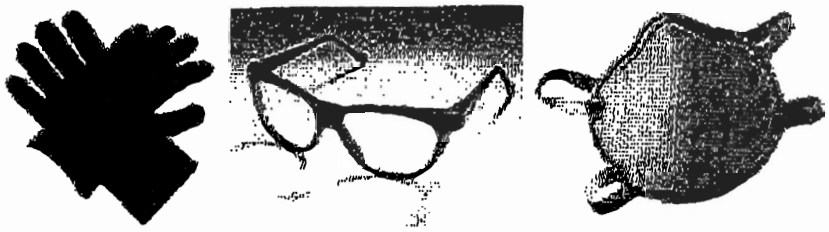
Company: Unimin Australia Ltd
Address:
Agl Building, Level 16, 116 Pacific Hwy
North Sydney
NSW, 2060
AUS
Telephone: (+61 2) 9458 2929
Fax: 02 9458 2900

CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability: 0		
Toxicity: 0		
Body Contact: 0		
Reactivity: 0		
Chronic: 1		

Min/Nil=0
Low=1
Moderate=2
High=3
Extreme=4

PERSONAL PROTECTIVE EQUIPMENT FOR INDUSTRIAL/COMMERCIAL ENVIRONMENTS



SYNONYMS

talc powder containing no asbestos fibre

SHIPPING NAME

NONE

Product Name:

Unimin Talc

Other Names:

Talc Products

CAS RN No(s):	None
U.N. Number:	None
Packaging Group:	None
Dangerous Goods Class:	None
Subsidiary Risk:	None
Hazchem Code:	None
Poisons Schedule Number:	None

USE

Used e.g. as dusting powder (rubber), agricultural dusts, insecticide carrier, filler in rubber and bituminous compounds.

PHYSICAL DESCRIPTION/PROPERTIES

APPEARANCE

Cream/yellow powder. Insoluble in water. Pearly lustre, greasy feel. No odour. High resistance to acids, alkalis and heat. Hardness Mohs = 1. Platy structure. The purity and physical form depends on the source and minerals found in the ore body from which the talc is refined.

Boiling Point (deg C):	Not applicable.
Melting Point (deg C):	900-1000 -H2O
Vapour Pressure (kPa):	Approx. 0
Specific Gravity:	2.65

Flash Point (deg C):	Not applicable
Lower Explosive Limit (%):	Not applicable
Upper Explosive Limit (%):	Not applicable
Solubility in Water (g/L):	Immiscible

INGREDIENTS

NAME	CAS RN	%
talc	14807-96-6.	100

HEALTH HAZARD

ACUTE HEALTH EFFECTS

SWALLOWED

Considered to be non toxic
Considered an unlikely route of entry in commercial/industrial environments
The material may be mildly discomforting if swallowed

EYE

The material may be mildly discomforting and mildly abrasive to the eyes

SKIN

Not considered an irritant through normal use.

INHALED

The dust is slightly discomforting to the upper respiratory tract and lungs but the material may present a hazard from repeated exposures over long periods
Prolonged exposure may cause upper respiratory tract damage
Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and inhalation of generated dusts.
Inhalation of dust is an acute and chronic hazard.
The powder dries the mucous membranes of the bronchioles, disrupts pulmonary clearance, clogs smaller airways. Victims display wheezing, rapid or difficult breathing, increased pulse, cyanosis, fever.
Mild exposure may cause relatively minor inflammatory lung disease.
Long term exposure may show wheezing, weakness, productive cough, limited chest expansion, scattered rales, cyanosis.

FIRST AID

SWALLOWED

· If swallowed do NOT induce vomiting.
· If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
· Observe the patient carefully.
· Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
· Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
· Seek medical advice.

EYE

If this product comes in contact with the eyes:
· Wash out immediately with fresh 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.
· If pain persists or recurs seek medical attention.
· Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:
· Flush skin and hair with running water (and soap if available).
· Seek medical attention in event of irritation.

INHALED

· If dust is inhaled, remove from contaminated area.
· Encourage patient to blow nose to ensure clear passage of breathing.
· If irritation or discomfort persists seek medical attention.

ADVICE TO DOCTOR

Treat symptomatically.

PRECAUTION FOR USE

EXPOSURE STANDARDS

No data for Unimin Talc.

EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :1 mg/m³.
Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.
If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component	Breathing Zone ppm	Breathing Zone mg/m³	Mixture Conc (%)
talc	1	100	0

INGREDIENT DATA

TALC:
TLV TWA: 6 mg/m³ (Value for particulate matter containing no asbestos and <1% crystalline silica)
[ACGIH]
TLV TWA: 3 mg/m³ (Value for particulate matter containing no asbestos and <1% crystalline silica,Respirable fraction) [ACGIH]
TLV TWA: Use asbestos TLV (Should not exceed 2 mg/m³ respirable particulate) A1 [ACGIH]
TLV TWA: 2 mg/m³ (E, R) no asbestos fibre A4 [ACGIH]
PEL: (Talc (not containing asbestos)) [OSHA Z3]20 mppcf
Footnote (c): Containing less than 1% quartz; if 1% quartz or more, use quartz limit.
talc containing no asbestos fibre and <1% crystalline silica
TLV TWA: 2 mg/m³ (respirable dust) A4
NOTE: This substance has been classified by the ACGIH as A4 NOT classifiable as causing Cancer in humans
The concentration of respirable dust for application of this limit is to be

determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative lognormal function with a median aerodynamic diameter of 4.0 µm (+-) 0.3 µm and with a geometric standard deviation of 1.5 µm (+-) 0.1 µm, i.e..generally less than 5 µm.
ES TWA: 2.5 mg/m³ (Under review)
OES TWA: 1 mg/m³ (respirable dust)
IDLH Level: 1000 mg/m³
Most health problems associated with occupational exposure to talcs appear to evolve mostly from the nonplatiform content of the talc being mined or milled (being the asbestos-like amphiboles, serpentines (asbestiformes) and other minerals in the form of acicular, prismatic and fibrous crystals including, possibly, asbestos).
Because of severe health effects associated with exposures to asbestos, regulatory agencies tend to regard all elongate mineral crystal particles, whether prismatic, acicular, fibrous, as asbestos - the only provision is the particles have an aspect ratio (length to diameter) of 3:1 or greater. Consideration is also given to their respirability, their width being less than or equal to 3 µm. Only limited data, however, exists on the health effects of elongate mineral particles having prismatic, acicular or fibrous (non-asbestos) forms. Experimental evidence indicates that the carcinogen potential of mineral fibres is related to the size class with diameter of <0.25 µm and length >8 µm with shorter, thicker particles having little biological activity.
Dust of nonfibrous talc, consisting entirely of platiform talc crystals and containing no asbestos poses a relatively small respiratory hazard. Difficulties exist, however, in the determination of asbestos as cleavage fragments of prismatic or acicular crystals, nonasbestos fibres and asbestos fibres are very similar. Subject to an accurate determination of asbestos and crystalline silica, exposure at or below the recommended TLV-TWA is thought to protect workers from the significant risk of nonmalignant respiratory effects associated with talc dusts.

ENGINEERING CONTROLS

· Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
· Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
· If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:
(a): particle dust respirators, if necessary, combined with an absorption cartridge;
(b): filter respirators with absorption cartridge or canister of the right type;
(c): fresh-air hoods or masks
· Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
· Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.

Type of Contaminant:	Air Speed:
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity	2.5-10 m/s (500-2000 f/min.)

into zone of very high rapid air motion).

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 f/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

PERSONAL PROTECTION

EYE

Safety glasses with side shields; or as required, Chemical goggles. Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

Wear physical protective gloves, eg. leather.
Wear safety footwear.

OTHER

Overalls.
Eyewash unit.

RESPIRATOR

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

* - Negative pressure demand ** - Continuous flow

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational

Health and Safety Advisor.

SAFE HANDLING

STORAGE AND TRANSPORT

SUITABLE CONTAINER

Multi-ply woven plastic or paper bag with sealed plastic liner
NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
Plastic bag
NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse.
· Check that containers are clearly labelled
Packaging as recommended by manufacturer.

STORAGE INCOMPATIBILITY

None known

STORAGE REQUIREMENTS

· Keep dry.
· Store under cover.
· Protect containers against physical damage.
· Observe manufacturer's storing and handling recommendations.

TRANSPORTATION

No restrictions.

SPILLS AND DISPOSAL

MINOR SPILLS

Clean up all spills immediately.
Use dry clean up procedures and avoid generating dust.
If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator. Vacuum up or sweep up.
Place in suitable containers for disposal.

MAJOR SPILLS

Minor hazard
· Clear area of personnel and move upwind.
· If inhalation risk of exposure exists, wear SAA approved dust respirator.
· Collect recoverable product into labelled containers for recycling.

DISPOSAL

· Recycle wherever possible or consult manufacturer for recycling options.
· Consult State Land Waste Management Authority for disposal.
· Bury residue in an authorised landfill.

FIRE FIGHTERS' REPORT

EXTINGUISHING MEDIA

Non combustible

There is no restriction on the type of extinguisher which may be used.

FIRE FIGHTING

Product is not combustible. No special firefighting procedures required.
Alert Fire Brigade and tell them location and nature of hazard.
Use fire fighting procedures suitable for surrounding area.

FIRE/EXPLOSION HAZARD

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

FIRE INCOMPATIBILITY

None known

HAZCHEM

None

CONTACT POINT

COMPANY CONTACT
(+61 2) 9458 2929

AUSTRALIAN POISONS INFORMATION CENTRE
24 HOUR SERVICE: 13 11 26
POLICE, FIRE BRIGADE OR AMBULANCE: 000

NEW ZEALAND POISONS INFORMATION CENTRE
24 HOUR SERVICE: (03) 4747 000
NZ EMERGENCY SERVICES: 111

End of Report

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