

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 1 of 18

---

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

---

### PRODUCT NAME

AC100E PART A

### SYNONYMS

"adhesive system cartridge component A part A two-part"

### PRODUCT USE

Adhesive system applied by a cartridge.

### SUPPLIER

Company: Powers Fasteners Australasia Pty Ltd

Address:

Factory 3, 205 Abbots Road

Dandenong South

VIC, 3175

AUS

Telephone: +61 3 8787 5888

Telephone: +1 800 677 872 (freecall)

Fax: +61 3 9878 5899

---

## Section 2 - HAZARDS IDENTIFICATION

---

### STATEMENT OF HAZARDOUS NATURE

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.**

### POISONS SCHEDULE

None

### RISK

Irritating to eyes respiratory system and skin.

May cause SENSITISATION by skin contact.

Harmful to aquatic organisms may cause long- term adverse effects in the aquatic environment.

### SAFETY

Wear eye/ face protection.

Use only in well ventilated areas.

Keep container in a well ventilated place.

To clean the floor and all objects contaminated by this material use water and detergent.

Take off immediately all contaminated clothing.

In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.

If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre (show this container or label).

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet  
Issue Date: 6-Dec-2007  
NC317ECP

CHEMWATCH 4936-72  
Version No:2.0  
CD 2008/1 Page 2 of 18

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
2- hydroxyethyl methacrylate	868-77-9	1-19
methylstyrene, mixed isomers	1321-45-5	1-19
silica amorphous	7631-86-9	1-10
dipropoxy- p- toluidine	38668-48-3	0.1-0.9
silica crystalline - quartz	14808-60-7	Not Spec

## Section 4 - FIRST AID MEASURES

### SWALLOWED

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

### EYE

If this product comes in contact with eyes:

- Wash out immediately with water.
- If irritation continues, seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

### SKIN

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.

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

### NOTES TO PHYSICIAN

For acute or short term repeated exposures to styrene:

#### INHALATION:

- Severe exposures should have cardiac monitoring to detect arrhythmia.
- Catecholamines, especially epinephrine (adrenaline) should be used cautiously (if at all).
- Aminophylline and inhaled beta-two selective bronchodilators (e.g. salbutamol) are the drugs of choice for treatment of bronchospasm.

#### INGESTION:

- Ipecac syrup should be given for ingestions exceeding 3ml (styrene)/kg.
- For patients at risk of aspiration because of obtundation, intubation should precede lavage.

· Pneumonitis is a significant risk. Watch the patient closely in an upright (alert patient) or left lateral head-down position (obtunded patient) to reduce aspiration potential. [Ellenhorn and Barceloux: Medical Toxicology]

#### BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker who has been exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
1. Mandelic acid in urine	800 µg/gm creatinine	End of shift	NS

continued...

# AC100E PART A

## Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 3 of 18

Section 4 - FIRST AID MEASURES

---

2. Phenylglyoxylic acid in urine	300 mg/gm creatinine	Prior to next shift	NS
	240 mg/gm creatinine	End of shift	NS
3. Styrene in venous blood	100 mg/gm creatinine	Prior to next shift	SQ
	0.55 mg/L	End of shift	
	0.02 mg/L	Prior to next shift	SQ

NS: Non-specific determinant; also seen after exposure to other materials.

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

B: Background levels occur in specimens collected from subjects NOT exposed.

---

## Section 5 - FIRE FIGHTING MEASURES

---

### EXTINGUISHING MEDIA

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

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

### FIRE/EXPLOSION HAZARD

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

Decomposition may produce toxic fumes of:

carbon dioxide (CO<sub>2</sub>),

nitrogen oxides (NO<sub>x</sub>),

other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

### FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

**HAZCHEM: None**

### Personal Protective Equipment

Gas tight chemical resistant suit.

---

## Section 6 - ACCIDENTAL RELEASE MEASURES

---

### EMERGENCY PROCEDURES

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 4 of 18

Section 6 - ACCIDENTAL RELEASE MEASURES

---

## MINOR SPILLS

- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.
- Flush spill area with water.

## MAJOR SPILLS

Minor hazard.

- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways.
- If contamination of drains or waterways occurs, advise emergency services.

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

---

## Section 7 - HANDLING AND STORAGE

---

### PROCEDURE FOR 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.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Packing as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

### STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.

continued...

# AC100E PART A

## Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 5 of 18

Section 7 - HANDLING AND STORAGE

- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL mg/m <sup>3</sup>	TWA F/CC
Australia Exposure Standards	methylstyrene, mixed isomers (Vinyl toluene)	50	242	100	483	
Australia Exposure Standards	silica amorphous (Glasswool)		0.5			0.5
Australia Exposure Standards	silica amorphous (Silica - Amorphous Fumed silica (respirable dust))		2			
Australia Exposure Standards	silica amorphous (Inspirable dust (not otherwise classified))		10			
Australia Exposure Standards	silica amorphous (Silica - Amorphous Fume (thermally generated)(respirable dust) (g))		2			
Australia Exposure Standards	silica crystalline - quartz (Silica - Crystalline Quartz)		0.1			
Australia Exposure Standards	silica crystalline - quartz (Silica - Amorphous Fume (thermally generated)(respirable dust) (g))		2			

The following materials had no OELs on our records

- 2- hydroxyethyl methacrylate: CAS:868- 77- 9
- dipropoxy- p- toluidine: CAS:38668- 48- 3

### EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (mg/m3)	Revised IDLH Value (mg/m3)
Revised IDLH Value (ppm)	N.E.	N.E.
3, 000	silica crystalline - quartz	N.E.
N.E.		

### MATERIAL DATA

Not available. Refer to individual constituents.

### INGREDIENT DATA

2-HYDROXYETHYL METHACRYLATE:

METHYLSTYRENE, MIXED ISOMERS:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 6 of 18

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus

increasing the risk of overexposure.

### 2-HYDROXYETHYL METHACRYLATE:

Designated S in List of MAK values: Danger of sensitization.

MAK values, and categories and groups are those recommended within the Federal Republic of Germany.

CEL TWA: 50 ppm, 260 mg/m<sup>3</sup>

### METHYLSTYRENE, MIXED ISOMERS:

Exposed individuals are reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class A or B.

The Odour Safety Factor (OSF) is defined as:

OSF = Exposure Standard (TWA) ppm / Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

The toxicological properties of vinyltoluene are similar to those of styrene and the TLV- TWA and STEL are analogous. The limits are thought to be protective against mucous membrane and ocular irritation and should

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 7 of 18

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

reduce the complaints of objectionable odour. Given that axonal degeneration found in rats inhaling vinyltoluene is more significant than in rats inhaling comparable concentrations of styrene, and that neurological changes are more prominent, the limits are the subject of review.

Human subjects show ocular and upper respiratory tract irritation at 400 ppm, complain of a strong objectionable odour at 300 ppm and a strong but tolerable odour at 200 ppm.. At 50 ppm, the odour is detectable and may become disagreeable, but does not produce irritation of the mucous membranes.

### SILICA AMORPHOUS:

It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

### DIPROPOXY-P-TOLUIDINE:

No exposure limits set by NOHSC or ACGIH.

### SILICA CRYSTALLINE - QUARTZ:

Because the margin of safety of the quartz TLV is not known with certainty and given the associated link between silicosis and lung cancer it is recommended that quartz concentrations be maintained as far below the TLV as prudent practices will allow.

## PERSONAL PROTECTION

### EYE

- 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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

### HANDS/FEET

Wear chemical protective gloves, eg. PVC.

Wear safety footwear or safety gumboots, eg. Rubber.

- NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet  
Issue Date: 6-Dec-2007  
NC317ECP

CHEMWATCH 4936-72  
Version No:2.0  
CD 2008/1 Page 8 of 18

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### RESPIRATOR

Respiratory protection may be required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor (Min)	Half- Face Respirator	Full- face Respirator
10 x ES	A- - AUS A- - PAPR- AUS	- -
20 x ES	-	A- - AUS A- - PAPR- AUS
100 x ES	-	A- - 2 A- - PAPR- 2

^ - Full-face.

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.

### ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL PROPERTIES

Molecular Weight: Not Applicable  
Melting Range (°C): Not Available  
Solubility in water (g/L): Partly Miscible  
pH (1% solution): Not Available  
Volatile Component (%vol): Not Available  
Relative Vapour Density (air=1): Not Available  
Lower Explosive Limit (%): Not Available  
Autoignition Temp (°C): Not Available  
State: Non Slump Paste

Boiling Range (°C): Not Available  
Specific Gravity (water= 1): 1.61  
pH (as supplied): Not Available  
Vapour Pressure (kPa): Not Available  
Evaporation Rate: Not Available  
Flash Point (°C): Not Applicable

Upper Explosive Limit (%): Not Available  
Decomposition Temp (°C): Not Available  
Viscosity: Not available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

Product is considered stable and hazardous polymerisation will not occur.

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

continued...



# AC100E PART A

Chemwatch Material Safety Data Sheet  
Issue Date: 6-Dec-2007  
NC317ECP

CHEMWATCH 4936-72  
Version No:2.0  
CD 2008/1 Page 9 of 18

## Section 11 - TOXICOLOGICAL INFORMATION

### ACUTE HEALTH EFFECTS

#### SWALLOWED

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. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

#### EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

#### SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

#### INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

### CHRONIC HEALTH EFFECTS

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

Sensitisation may give severe responses to very low levels of exposure, i.e.

hypersensitivity. Sensitised persons should not be allowed to work in situations where exposure may occur.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].

Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

### TOXICITY AND IRRITATION

None assigned. Refer to individual constituents.

#### 2-HYDROXYETHYL METHACRYLATE:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

IRRITATION

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 10 of 18

## Section 11 - TOXICOLOGICAL INFORMATION

Oral (rat) LD50: 5050 mg/kg

Intraperitoneal (Mouse) LD50: 497 mg/kg  
post- exposure

Oral (Guinea pig) LD50: 4680 mg/kg

Intraperitoneal (Rat) LD50: 1250 mg/kg

Oral (Mouse) LD50: 3275 mg/kg

Eye (rabbit): SEVERE \*

Skin (rabbit): non- irritating\*

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. 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. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety ( $\text{CH}_2=\text{CHCOO}$  or  $\text{CH}_2=\text{C}(\text{CH}_3)\text{COO}$ ) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing. This position has now been revised and acrylates and methacrylates are no longer de facto carcinogens.

Dermal (rabbit): >5000 mg/kg\*

Effects persist beyond 21 days

\* Rohm & Haas

### METHYLSTYRENE, MIXED ISOMERS:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

#### TOXICITY

Oral (rat) LD50: 2255 mg/kg

Intraperitoneal (rat) LD50: 2324 mg/kg

Oral (mouse) LD50: 3160 mg/kg

Inhalation (mouse) LC50: 3020 mg/m<sup>3</sup>/4h

Inhalation (Human) TCLo: 400 ppm/4h

#### IRRITATION

Skin (rabbit): 100% Moderate

Eye (rabbit): 90 mg - Mild

The material may be irritating to the eye, with prolonged contact causing inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

Olfaction and eye effects recorded

### SILICA AMORPHOUS:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 11 of 18

Section 11 - TOXICOLOGICAL INFORMATION

Chemical Substances.

## TOXICITY

Oral (rat) LD50: 3160 mg/kg

Dermal (rabbit) LD50: >5000 mg/kg \*

Inhalation (rat) LC50: >0.139 mg/l/14h \*\*

[Grace]

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]

DIPROPOXY-P-TOLUIDINE:

None available.

SILICA CRYSTALLINE - QUARTZ:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

## TOXICITY

Inhalation (human) LCLo: 0.3 mg/m<sup>3</sup>/10Y

Inhalation (human) TCLo: 16 mppcf\*/8H/17.9Y

Inhalation (rat) TCLo: 50 mg/m<sup>3</sup>/6H/71W

WARNING: For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

Intermittent; focal fibrosis, (pneumoconiosis), cough, dyspnoea

Intermittent; liver - tumours.

\* Millions of particles per cubic foot (based on impinger samples counted by light field techniques).

NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.

## IRRITATION

Skin (rabbit): non- irritating \*

Eye (rabbit): non- irritating \*

## IRRITATION

Nil Reported

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
methylstyrene, mixed isomers	IARC:3			
silica amorphous	IARC:3			
silica crystalline - quartz	IARC:1			

## CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: methylstyrene, mixed isomers Category: The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.

## CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: silica amorphous Category: The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.

## CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: silica crystalline - quartz Category: WARNING: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS.

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet  
Issue Date: 6-Dec-2007  
NC317ECP

CHEMWATCH 4936-72  
Version No:2.0  
CD 2008/1 Page 12 of 18

## Section 12 - ECOLOGICAL INFORMATION

Drinking Water Standards:  
hydrocarbon total: 10 ug/l (UK max.).  
DO NOT discharge into sewer or waterways.  
Refer to data for ingredients, which follows:

### 2-HYDROXYETHYL METHACRYLATE:

Ecotoxicity of acrylates is a function of n-octanol/ water partition coefficient (log Pow, log Kow). Compounds with a log Pow >5 exhibit simple narcosis, but at lower log Pow the toxicity of acrylates is greater than predicted for simple narcotics.

If released to surface water, acrylic acid and the acrylic esters would all be rapidly biodegraded while a portion would volatilise to the air. Acrylic acid was shown to rapidly biodegrade aerobically in soil ( $t_{1/2} < 1$  day). Volatilised acrylic acid and acrylic esters are predicted to degrade rapidly by atmospheric photo-oxidation with estimated half-lives of 2 to 24 h.

The mobility in soil of acrylic acid and its esters ranged from 'medium' to 'very high'. Calculated bioconcentration factors ranged from 1 to 37, suggesting a low bioconcentration potential. Acrylic acid and methyl acrylate showed limited biodegradability in the five day biochemical oxygen demand (BOD5) test, while ethyl acrylate and butyl acrylate were degraded easily (77% and 56%, respectively). Using the OECD method 301D 28-d closed bottle test, degradability for acrylic acid was 81% at 28 days, while the acrylic esters ranged from 57% to 60%. Acrylic acid degraded rapidly to carbon dioxide in soil ( $t_{1/2} < 1$  day).

According to classification procedures developed by the US EPA, the acute toxicity of acrylic acid to fish and invertebrates ranged from 'slightly' toxic to 'practically non-toxic'. The acute toxicity of the acrylic esters was 'moderately' toxic. Effects on algae of these compounds could not be judged from static tests due to the extensive biodegradation and volatilisation that occurred during the tests. Toxicity tests were conducted using freshwater and marine fish, invertebrates, and algae. Acrylic acid effect concentrations for fish and invertebrates ranged from 27 to 236 mg/l. Effect concentrations (LC50 or EC50) for fish and invertebrates using methyl acrylate, ethyl acrylate, and butyl acrylate ranged from 1.1 to 8.2 mg/l. The chronic maximum acceptable toxicant concentration (MATC) for acrylic acid with *Daphnia magna* was 27 mg/l based on length and young produced per adult reproduction day and for ethyl acrylate was 0.29 mg/l based on both the reproductive and growth endpoints. MATC values represent an approximate threshold of chronic effects to an organism.

Overall these studies show that acrylic acid and the acrylic esters studied can rapidly biodegrade, have a low potential for persistence or bioaccumulation in the environment, and have low to moderate toxicity.

C. A. Staples et al; Chemosphere Vol 40, January 2000, pp 29-38.

Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below). Most are reactive with environmental ozone and many produce stable products which are thought to adversely affect human health. The potential for surfaces in an enclosed space to facilitate reactions should be considered.

Source of unsaturated substances	Unsaturated substances (Reactive Emissions)	Major Stable Products produced following reaction with ozone.
Occupants (exhaled breath, ski oils, personal care products)	Isoprene, nitric oxide, squalene, unsaturated sterols, oleic acid and other unsaturated fatty acids, unsaturated oxidation products	Methacrolein, methyl vinyl ketone, nitrogen dioxide, acetone, 6MHQ, geranyl acetone, 4OPA, formaldehyde, nonanol, decanal, 9-oxo-nonanoic acid, azelaic acid, nonanoic acid.
Soft woods, wood flooring, including cypress, cedar and silver fir boards,	Isoprene, limonene, alpha-pinene, other terpenes and sesquiterpenes	Formaldehyde, 4-AMC, pinoaldehyde, pinic acid, pinonic acid, formic acid,

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 13 of 18

Section 12 - ECOLOGICAL INFORMATION

houseplants		methacrolein, methyl vinyl ketone, SOAs including ultrafine particles
Carpets and carpet backing	4- Phenylcyclohexene, 4-vinylcyclohexene, styrene, 2-ethylhexyl acrylate, unsaturated fatty acids and esters	Formaldehyde, acetaldehyde, benzaldehyde, hexanal, nonanal, 2- nonenal
Linoleum and paints/polishes containing linseed oil	Linoleic acid, linolenic acid	Propanal, hexanal, nonanal, 2- heptenal, 2- nonenal, 2- decenal, 1- pentene- 3- one, propionic acid, n- butyric acid
Latex paint Certain cleaning products, polishes, waxes, air fresheners	Residual monomers Limonene, alpha- pinene, terpinolene, alpha-terpineol, linalool, linalyl acetate and other terpenoids, longifolene and other sesquiterpenes	Formaldehyde Formaldehyde, acetaldehyde, glycoaldehyde, formic acid, acetic acid, hydrogen and organic peroxides, acetone, benzaldehyde, 4- hydroxy- 4- methyl- 5- hexen- 1- al, 5- ethenyl- dihydro- 5- methyl- 2(3H)- furanone, 4- AMC, SOAs including ultrafine particles
Natural rubber adhesive	Isoprene, terpenes	Formaldehyde, methacrolein, methyl vinyl ketone
Photocopier toner, printed paper, styrene polymers Environmental tobacco smoke	Styrene  Styrene, acrolein, nicotine	Formaldehyde, benzaldehyde, hexanal, glyoxal, N- methylformamide, nicotinaldehyde, cotinine
Soiled clothing, fabrics, bedding	Squalene, unsaturated sterols, oleic acid and other saturated fatty acids	Acetone, geranyl acetone, 6MHO, 40PA, formaldehyde, nonanal, decanal, 9- oxo- nonanoic acid, azelaic acid, nonanoic acid
Soiled particle filters	Unsaturated fatty acids from plant waxes, leaf litter, and other vegetative debris; soot; diesel particles	Formaldehyde, nonanal, and other aldehydes; azelaic acid; nonanoic acid; 9- oxo- nonanoic acid and other oxo- acids; compounds with mixed functional groups (=O, - OH, and - COOH)
Ventilation ducts and duct liners	Unsaturated fatty acids and esters, unsaturated oils, neoprene	C5 to C10 aldehydes
" Urban grime"	Polycyclic aromatic hydrocarbons	Oxidized polycyclic aromatic hydrocarbons
Perfumes, colognes, essential oils (e.g. lavender, eucalyptus, tea tree)	Limonene, alpha- pinene, linalool, linalyl acetate, terpinene- 4- ol, gamma-terpinene	Formaldehyde, 4- AMC, acetone, 4- hydroxy- 4- methyl- 5- hexen- 1- al, 5- ethenyl- dihydro- 5- methyl- 2(3H) furanone, SOAs including ultrafine particles
Overall home emissions	Limonene, alpha- pinene, styrene	Formaldehyde, 4- AMC, pinonaldehyde, acetone, pinic acid, pinonic acid, formic acid, benzaldehyde, SOAs including ultrafine particles

continued...

# AC100E PART A

## Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 14 of 18

Section 12 - ECOLOGICAL INFORMATION

Abbreviations: 4-AMC, 4-acetyl-1-methylcyclohexene; 6MHQ, 6-methyl-5-heptene-2-one, 4OPA, 4-oxopentanal, SOA, Secondary Organic Aerosols

Reference: Charles J Weschler; Environmental Health Perspectives, Vol 114, October 2006.

DO NOT discharge into sewer or waterways.

### METHYLSTYRENE, MIXED ISOMERS:

BCF<100: 49

Water solubility (g/l): 89

Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below). Most are reactive with environmental ozone and many produce stable products which are thought to adversely affect human health. The potential for surfaces in an enclosed space to facilitate reactions should be considered.

Source of unsaturated substances	Unsaturated substances (Reactive Emissions)	Major Stable Products produced following reaction with ozone.
Occupants (exhaled breath, ski oils, personal care products)	Isoprene, nitric oxide, squalene, unsaturated sterols, oleic acid and other unsaturated fatty acids, unsaturated oxidation products	Methacrolein, methyl vinyl ketone, nitrogen dioxide, acetone, 6MHQ, geranyl acetone, 4OPA, formaldehyde, nonanol, decanal, 9-oxo-nonanoic acid, azelaic acid, nonanoic acid.
Soft woods, wood flooring, including cypress, cedar and silver fir boards, houseplants	Isoprene, limonene, alpha-pinene, other terpenes and sesquiterpenes	Formaldehyde, 4-AMC, pinoaldehyde, pinic acid, pinonic acid, formic acid, methacrolein, methyl vinyl ketone, SOAs including ultrafine particles
Carpets and carpet backing	4-Phenylcyclohexene, 4-vinylcyclohexene, styrene, 2-ethylhexyl acrylate, unsaturated fatty acids and esters	Formaldehyde, acetaldehyde, benzaldehyde, hexanal, nonanal, 2-nonenal
Linoleum and paints/polishes containing linseed oil	Linoleic acid, linolenic acid	Propanal, hexanal, nonanal, 2-heptenal, 2-nonenal, 2-decenal, 1-pentene-3-one, propionic acid, n-butyric acid
Latex paint Certain cleaning products, polishes, waxes, air fresheners	Residual monomers Limonene, alpha-pinene, terpinolene, alpha-terpineol, linalool, linalyl acetate and other terpenoids, longifolene and other sesquiterpenes	Formaldehyde Formaldehyde, acetaldehyde, glycoaldehyde, formic acid, acetic acid, hydrogen and organic peroxides, acetone, benzaldehyde, 4-hydroxy-4-methyl-5-hexen-1-al, 5-ethenyl-dihydro-5-methyl-2(3H)-furanone, 4-AMC, SOAs including ultrafine particles
Natural rubber adhesive	Isoprene, terpenes	Formaldehyde, methacrolein, methyl vinyl ketone
Photocopier toner, printed paper, styrene polymers	Styrene	Formaldehyde, benzaldehyde
Environmental tobacco smoke	Styrene, acrolein, nicotine	Formaldehyde, benzaldehyde, hexanal, glyoxal, N-methylformamide, nicotinaldehyde, cotinine

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 15 of 18

## Section 12 - ECOLOGICAL INFORMATION

Soiled clothing, fabrics, bedding	Squalene, unsaturated sterols, oleic acid and other saturated fatty acids	Acetone, geranyl acetone, 6MHO, 40PA, formaldehyde, nonanal, decanal, 9- oxo-nonanoic acid, azelaic acid, nonanoic acid
Soiled particle filters	Unsaturated fatty acids from plant waxes, leaf litter, and other vegetative debris; soot; diesel particles	Formaldehyde, nonanal, and other aldehydes; azelaic acid; nonanoic acid; 9- oxo-nonanoic acid and other oxo-acids; compounds with mixed functional groups (=O, - OH, and - COOH)
Ventilation ducts and duct liners	Unsaturated fatty acids and esters, unsaturated oils, neoprene	C5 to C10 aldehydes
" Urban grime"	Polycyclic aromatic hydrocarbons	Oxidized polycyclic aromatic hydrocarbons
Perfumes, colognes, essential oils (e.g. lavender, eucalyptus, tea tree)	Limonene, alpha- pinene, linalool, linalyl acetate, terpinene- 4- ol, gamma-terpinene	Formaldehyde, 4- AMC, acetone, 4- hydroxy- 4- methyl- 5- hexen- 1- al, 5- ethenyl- dihydro- 5- methyl- 2(3H) furanone, SOAs including ultrafine particles
Overall home emissions	Limonene, alpha- pinene, styrene	Formaldehyde, 4- AMC, pinonaldehyde, acetone, pinic acid, pinonic acid, formic acid, benzaldehyde, SOAs including ultrafine particles

Abbreviations: 4-AMC, 4-acetyl-1-methylcyclohexene; 6MHQ, 6-methyl-5-heptene-2-one, 4OPA, 4-oxopentanal, SOA, Secondary Organic Aerosols

Reference: Charles J Weschler; Environmental Health Perspectives, Vol 114, October 2006.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

### SILICA AMORPHOUS:

DO NOT discharge into sewer or waterways.

Aquatic toxicity (Daphnia magna) 24h EC50: >1000 mg/l

Fish toxicity (Brachydanio rerio) 96h LC50: >10,000 mg/l

[Grace]

### SILICA CRYSTALLINE - QUARTZ:

DO NOT discharge into sewer or waterways.

## Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.
- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not

continued...

# AC100E PART A

## Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 16 of 18

## Section 13 - DISPOSAL CONSIDERATIONS

remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

## Section 14 - TRANSPORTATION INFORMATION

Labels Required:

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN, IATA, IMDG

## Section 15 - REGULATORY INFORMATION

**POISONS SCHEDULE: None**

### REGULATIONS

AC100e Part A (CAS: None):

No regulations applicable

2-hydroxyethyl methacrylate (CAS: 868-77-9) is found on the following regulatory lists;

Australia Hazardous Substances

Australia Inventory of Chemical Substances (AICS)

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

methylstyrene, mixed isomers (CAS: 1321-45-5) is found on the following regulatory lists;

Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported

Australia Dangerous Goods Code Draft 7th Edition - Goods too Dangerous to be Transported

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5

International Air Transport Association (IATA) Dangerous Goods Regulations

methylstyrene, mixed isomers (CAS: 25013-15-4) is found on the following regulatory lists;

Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported

Australia Dangerous Goods Code Draft 7th Edition - Goods too Dangerous to be Transported

Australia Exposure Standards

Australia Hazardous Substances

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5

IMO IBC Code Chapter 17: Summary of minimum requirements

International Agency for Research on Cancer (IARC) Carcinogens

International Air Transport Association (IATA) Dangerous Goods Regulations

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

silica amorphous (CAS: 7631-86-9) is found on the following regulatory lists;

Australia Exposure Standards

Australia Hazardous Substances

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines

CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP

IMO IBC Code Chapter 17: Summary of minimum requirements

International Agency for Research on Cancer (IARC) Carcinogens

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

silica amorphous (CAS: 112945-52-5) is found on the following regulatory lists;

Australia - Victoria Occupational Health and Safety Regulations - Schedule 5 Hazardous Substances: Substances Prohibited for Specified Uses

Australia Exposure Standards

Australia Hazardous Substances

Australia High Volume Industrial Chemical List (HVICL)

Australia Inventory of Chemical Substances (AICS)

IMO IBC Code Chapter 17: Summary of minimum requirements

International Council of Chemical Associations (ICCA) - High Production Volume List

OECD Representative List of High Production Volume (HPV) Chemicals

dipropoxy-p-toluidine (CAS: 38668-48-3) is found on the following regulatory lists;

Australia Inventory of Chemical Substances (AICS)

silica crystalline - quartz (CAS: 14808-60-7) is found on the following regulatory lists;

Australia - New South Wales Hazardous Substances Prohibited for Specific Uses

Australia - New South Wales Hazardous Substances Requiring Health Surveillance

continued...



# AC100E PART A

## Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 17 of 18

## Section 15 - REGULATORY INFORMATION

Australia - South Australia Hazardous Substances Requiring Health Surveillance  
Australia - Tasmania Hazardous Substances Prohibited for Specified Uses  
Australia - Tasmania Hazardous Substances Requiring Health Surveillance  
Australia - Western Australia Hazardous Substances Requiring Health Surveillance  
Australia Exposure Standards  
Australia Hazardous Substances  
Australia Hazardous Substances Requiring Health Surveillance  
Australia High Volume Industrial Chemical List (HVICL)  
Australia Inventory of Chemical Substances (AICS)  
Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6  
IMO Provisional Categorization of Liquid Substances  
International Agency for Research on Cancer (IARC) Carcinogens  
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for silica crystalline - quartz as CAS: 122304-48-7, CAS: 122304-49-8, CAS: 12425-26-2, CAS: 1317-79-9, CAS: 70594-95-5, CAS: 87347-84-0.

## Section 16 - OTHER INFORMATION

### Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
methylstyrene, mixed isomers	25013- 15- 4	R43

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
methylstyrene, mixed isomers	1321- 45- 5, 25013- 15- 4
silica amorphous	7631- 86- 9, 112945- 52- 5
silica crystalline - quartz	14808- 60- 7, 122304- 48- 7, 122304- 49- 8, 12425- 26- 2, 1317- 79- 9, 70594- 95- 5, 87347- 84- 0

### EXPOSURE STANDARD FOR MIXTURES

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m<sup>3</sup>): 260 mg/m<sup>3</sup>

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/m<sup>3</sup> Mixture Conc: (%).

Component	Breathing zone (ppm)	Breathing Zone (mg/m <sup>3</sup> )	Mixture Conc (%)
2-hydroxyethyl methacrylate	50.00	260.0000	19.0

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](http://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.

*This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.*

Issue Date: 6-Dec-2007

continued...

# AC100E PART A

Chemwatch Material Safety Data Sheet

Issue Date: 6-Dec-2007

NC317ECP

CHEMWATCH 4936-72

Version No:2.0

CD 2008/1 Page 18 of 18

Section 16 - OTHER INFORMATION

---

Print Date: 19-Mar-2008