

WATTYL CRYSTALAC SEALER PART A

Chemwatch Material Safety Data Sheet (REVIEW)
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NC317TCP

CHEMWATCH 54471
Version No:3

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

WATTYL CRYSTALAC SEALER PART A

SYNONYMS

"Crystal Lac Lacquer acid catalysed spray timber sealer coating"

PROPER SHIPPING NAME

PAINT

PRODUCT USE

Part A of a two- pack, solvent based timber sealer. Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers. Application is usually by spray atomisation in a ventilated spray booth, after viscosity reduction with thinner. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

SUPPLIER

Company: Watty1 Pty Ltd
Address:
4 Steel St
Blacktown
NSW, 2148
AUS
Telephone: +61 2 9621 6255
Emergency Tel: 1800 039 008
Fax: +61 2 9831 4244

HAZARD RATINGS

Flammability	3
Toxicity	2
Body Contact	3
Reactivity	0
Chronic	2

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

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

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

POISONS SCHEDULE

S5 NZS3

RISK

Highly flammable.
Harmful by inhalation and in contact with skin.
Irritating to skin.
Limited evidence of a carcinogenic effect.
Risk of serious damage to eyes.
Harmful to aquatic

SAFETY

Keep away from sources of ignition. No smoking.
Keep container in a well ventilated place.
Avoid exposure - obtain special instructions before use.
Do not empty into drains.
To clean the floor and all objects contaminated by this material, use water and detergent.

organisms.
 HARMFUL—May cause lung damage if swallowed.
 Vapours may cause drowsiness and dizziness.

Ingestion may produce health damage*.

Cumulative effects may result following exposure*.
 May produce discomfort of the respiratory system*.
 Possible respiratory sensitiser*.
 Possible skin sensitiser*.
 May be harmful to the foetus/ embryo*.
 * (limited evidence).

Keep container tightly closed.
 Keep away from food, drink and animal feeding stuffs.

Take off immediately all contaminated clothing.

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

This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
xylene	1330-20-7	10-30
n- butanol	71-36-3	1-10
n- butyl acetate	123-86-4	10-30
resin as, alkyd resin solution	Various	10-30
urea/ formaldehyde resin solution, butylated with residue of formaldehyde.	68002-19-7	1-10 trace
talc	14807-96-6	1-10
additives, flattening agent, not regulated		1-10

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.
 contains less than 0.1% benzene

Section 4 - FIRST AID MEASURES

SWALLOWED

Rinse mouth out with plenty of water.

For advice, contact a Poisons Information Centre or a doctor.

- 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.

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

EYE

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

If solids or aerosol mists are deposited upon the skin:

- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation.

INHALED

- 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.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- Fight fire from a safe distance, with adequate cover.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control the fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- 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.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

Decomposes on heating and produces toxic fumes of:

amines.

and minor amounts of.

formaldehyde.

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

HAZCHEM: 3[Y]E**Personal Protective Equipment**

Breathing apparatus.

Gas tight chemical resistant suit.

Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- . Remove all ignition sources.
- . Clean up all spills immediately.
- . Avoid breathing vapours and contact with skin and eyes.
- . Control personal contact by using protective equipment.
- . Contain and absorb small quantities with vermiculite or other absorbent material.
- . Wipe up.
- . Collect residues in a flammable waste container.

MAJOR SPILLS

- . Clear area of personnel and move upwind.
- . Alert Fire Brigade and tell them location and nature of hazard.
- . May be violently or explosively reactive.
- . Wear breathing apparatus plus protective gloves.
- . Prevent, by any means available, spillage from entering drains or water course.
- . Consider evacuation (or protect in place).
- . No smoking, naked lights or ignition sources.
- . Increase ventilation.
- . Stop leak if safe to do so.
- . Water spray or fog may be used to disperse /absorb vapour.
- . Contain spill with sand, earth or vermiculite.
- . Use only spark-free shovels and explosion proof equipment.
- . Collect recoverable product into labelled containers for recycling.
- . Absorb remaining product with sand, earth or vermiculite.
- . Collect solid residues and seal in labelled drums for disposal.
- . Wash area and prevent runoff into drains.
- . If contamination of drains or waterways occurs, advise emergency services.

PROTECTIVE ACTIONS FOR SPILL

From IERG (Canada/Australia)
 Isolation Distance 25 metres
 Downwind Protection Distance 300 metres
 IERG Number 14

FOOTNOTES

- 1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees either side of the predominant wind direction, resulting in a crosswind protective action distance to the downwind protective action distance.
- 2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the site and working away from the site in the downwind direction. Within the protective action zone a level vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated unable to take protective action and/or incurring serious or irreversible health effects.
- 3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a probability of localised wind reversal may expose nearly all persons without appropriate protective life-threatening concentrations of the material.
- 4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrycan with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".
 LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.
- 5 Guide 128 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - Transport Canada.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

xylene	900 ppm
n-butanol	1400 ppm
n-butyl acetate	3000 ppm
talc	500 mg/m ³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

xylene	200 ppm
n-butanol	50 ppm
n-butyl acetate	200 ppm
talc	10 mg/m ³

other than mild, transient adverse effects without perceiving a clearly defined odour is:

xylene	150 ppm
n-butanol	50 ppm
n-butyl acetate	5 ppm
talc	2 mg/m ³

The threshold concentration below which most people will experience no appreciable risk of health effects is:

xylene	100 ppm
n-butanol	50 ppm
n-butyl acetate	5 ppm
talc	2 mg/m ³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+) >= 0.1% Toxic (T) >= 3.0%
 R50 >= 0.25% Corrosive (C) >= 5.0%
 R51 >= 2.5%
 else >= 10%
 where percentage is percentage of ingredient found in the mixture

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

+: May be stored together
 O: May be stored together with specific preventions
 X: Must not be stored together

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

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Avoid generating and breathing mist.

- 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.
 - Avoid smoking, naked lights, heat or ignition sources.
 - When handling, DO NOT eat, drink or smoke.
 - Vapour may ignite on pumping or pouring due to static electricity.
 - DO NOT use plastic buckets.
 - Earth and secure metal containers when dispensing or pouring product.
 - Use spark-free tools when handling.
 - Avoid contact with incompatible materials.
 - Keep containers securely sealed.
 - Avoid physical damage to containers.
 - Always wash hands with soap and water after handling.
 - Work clothes should be laundered separately.
 - 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.
- DO NOT spray directly on humans, exposed food or food utensils.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.
 Avoid contamination of water, foodstuffs, feed or seed.

STORAGE REQUIREMENTS

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry, well-ventilated area.
- 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?	STEL ppm	STEL mg/m?	Peak ppm	Peak mg/m?	TWA F/CC
Source	Material	TWA	TWA	STEL	STEL	Peak	Peak	TWA

		ppm	mg/m?	ppm	mg/m?	ppm	mg/m?	F/CC
Australia Exposure Standards	xylene (Xylene (o-, m-, p-isomers))	80	350	150	655			
Australia Exposure Standards	n-butanol (n-Butyl alcohol)					50	152	
Australia Exposure Standards	n-butyl acetate (n-Butyl acetate)	150	713	200	950			
Australia Exposure Standards	talc (Soapstone (respirable dust))		3					
Australia Exposure Standards	talc (Talc, (containing no asbestos fibres))		2.5					

The following materials had no OELs on our records

? urea/ formaldehyde resin solution, butylated:

CAS:68002-19-7 CAS:69898-34-6

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
xylene		900
n-butanol		1,400 [LEL]
n-butyl acetate		1,700 [LEL]
talc	3,000	

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

ODOUR SAFETY FACTOR (OSF)

OSF=0.36 (urea/ formaldehyde resin solution, butylated)

Exposed individuals are NOT 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 C, D or E.

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

MATERIAL DATA

Not available. Refer to individual constituents.

INGREDIENT DATA

N-BUTANOL:

N-BUTYL ACETATE:

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

ALKYD RESIN SOLUTION:

UREA/ FORMALDEHYDE RESIN SOLUTION, BUTYLATED:

No exposure limits set by NOHSC or ACGIH.

XYLENE:

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

IDLH Level: 900 ppm

Odour Threshold Value: 20 ppm (detection), 40 ppm (recognition)

NOTE: Detector tubes for o-xylene, measuring in excess of 10 ppm, are available commercially. (m-xylene and p-xylene give almost the same response)

Xylene vapour is an irritant to the eyes, mucous membranes and skin and causes narcosis at high concentrations. Exposure to doses sufficiently high to produce intoxication and unconsciousness also produces transient liver and kidney toxicity. Neurologic impairment is NOT evident amongst

volunteers inhaling up to 400 ppm though complaints of ocular and upper respiratory tract irritation occur at 200 ppm for 3 to 5 minutes. Exposure to xylene at or below the recommended TLV-TWA and STEL is thought to minimise the risk of irritant effects and to produce neither significant narcosis or chronic injury. An earlier skin notation was deleted because percutaneous absorption is gradual and protracted and does not substantially contribute to the dose received by inhalation.

N-BUTANOL:

Odour Threshold value: 0.12-3.4 ppm (detection), 1.0-3.5 ppm (recognition)
NOTE: Detector tubes for n-butanol, measuring in excess of 5 ppm are commercially available.

Exposure at or below the TLV-TWA is thought to provide protection against hearing loss due to vestibular and auditory nerve damage in younger workers and to protect against the significant risk of headache and irritation.

25 ppm may produce mild irritation of the respiratory tract

50 ppm may produce headache and vertigo.

Higher concentrations may produce marked irritation, sore throat, coughing, nausea, shortness of breath, pulmonary injury and central nervous system depression characterised by headache, dizziness, dullness and drowsiness.

6000 ppm may produce giddiness, prostration, narcosis, ataxia, and death.

N-BUTYL ACETATE:

Odour Threshold value: 0.0063 ppm (detection), 0.038-12 ppm (recognition)

Exposure at or below the recommended TLV-TWA is thought to prevent significant irritation of the eyes and respiratory passages as well as narcotic effects. In light of the lack of substantive evidence regarding teratogenicity and a review of acute oral data a STEL is considered inappropriate.

TALC:

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 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.

PERSONAL PROTECTION

EYE

- Safety glasses with side shields; or as required,
- 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

- Barrier cream with polyethylene gloves or wear chemical protective gloves, eg. PVC. wear safety footwear.
- DO NOT use solvent to clean the skin.

OTHER

- Overalls.
- Eyewash unit.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined

as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half face Respirator	Full Face Respirator
1000	10	A-AUS P	-
1000	50	-	A-AUS P
5000	50	Airline*	-
5000	100	-	A-2 P
10000	100	-	A-3 P
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

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

Use in a well-ventilated area.

Spraying to be carried out in conditions conforming to local state regulations.

Unprotected personnel must vacate the spraying area.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
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 into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

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 onl

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 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters 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. In confined spaces where there is inadequate ventilation, wear full-face air supplied breathing apparatus.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Milky highly flammable liquid; floats on water. Strong solvent odour. Available in a range of gloss levels.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

Molecular weight: Not available.
 Melting Range (?C): Not available.
 Solubility in water (g/L): Immiscible
 pH (1% solution): Not available.
 Volatile Component (%vol): 60 approx
 Relative Vapour Density (air=1): >1
 Lower Explosive Limit (%): 1.0
 Autoignition Temp (?C): 214
 State: Liquid

Boiling Range (?C): 78-165
 Specific Gravity (water=1): 0.97-0.99
 pH (as supplied): Not applicable
 Vapour Pressure (kPa): Not available
 Evaporation Rate: Fast
 Flash Point (?C): 12 est.
 Upper Explosive Limit (%): 19.0
 Decomposition Temp (?C): Not available
 Viscosity: Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

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

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed. Ingestion may result in nausea, pain and vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

EYE

The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated. The vapour is discomforting to the eyes. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The liquid is discomforting to the skin. if contact is prolonged and is capable of causing skin reactions which may lead to dermatitis. and the material contains a component that may be absorbed through the skin. Bare unprotected skin should not be exposed to this material. Toxic effects may result from skin absorption. Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure

standard.

The material may accentuate any pre-existing dermatitis condition. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The vapour is discomforting to the upper respiratory tract and lungs.

Inhalation hazard is increased at higher temperatures.

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination. If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour and skin contact with the material.

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

Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

One of the constituents of the product has produced skin sensitisation reactions in either experimental animals and/or humans. Such reactions may be manifested as a localised reddening and/or urticaria (a hive-like asthma-like symptoms (shortness of breath, difficult breathing) and/or rhinitis (runny nose). This finding, however, remains speculative as the constituent has not been shown to raise specific antibodies in the blood in the same way as other confirmed allergens. The finding may also be confined to certain hypersensitive (atopic) individuals who show heightened reactions to other allergens such as pollen.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

XYLENE:

TOXICITY

Oral (human) LDLo: 50 mg/kg

Oral (rat) LD50: 4300 mg/kg

Inhalation (human) TClO: 200 ppm

Inhalation (man) LClO: 10000 ppm/6h

Inhalation (rat) LC50: 5000 ppm/4h

Oral (Human) LD: 50 mg/kg

Inhalation (Human) TClO: 200 ppm/4h

Intraperitoneal (Rat) LD50: 2459 mg/kg

Subcutaneous (Rat) LD50: 1700 mg/kg

Oral (Mouse) LD50: 2119 mg/kg

Intraperitoneal (Mouse) LD50: 1548 mg/kg

Intravenous (Rabbit) LD: 129 mg/kg

Inhalation (Guinea) pig: LC 450 ppm/4h

The material may produce severe irritation to the eye causing pronounced inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

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.

Reproductive effector in rats

IRRITATION

Skin (rabbit): 500 mg/24h Moderate

Eye (human): 200 ppm Irritant

Eye (rabbit): 87 mg Mild

Eye (rabbit): 5 mg/24h SEVERE

N-BUTANOL:

TOXICITY

Oral (rat) LD50: 790 mg/kg

Inhalation (human) TClO: 25 ppm

Inhalation (rat) LC50: 8000 ppm/4h

Dermal (rabbit) LD50: 3400 mg/kg

Inhalation (human) TClO: 86000 mg/m?

IRRITATION

Skin (rabbit): 405 mg/24h-Moderate

Eye (human): 50 ppm - Irritant

Eye (rabbit): 1.6 mg-SEVERE

Eye (rabbit): 24 mg/24h-SEVERE

N-BUTYL ACETATE:

TOXICITY

Oral (rat) LD50: 13100 mg/kg

Dermal (rabbit) LD50: 3200 mg/kg*

Inhalation (human) TClO: 200 ppm

Inhalation (rat) LC50: 2000 ppm/4h

IRRITATION

Skin (rabbit): 500 mg/24h-

Moderate

Eye (rabbit): 20 mg (open)-SEVERE

Eye (rabbit): 20 mg/24h -

Moderate

Eye (human): 300 mg

Inhalation (Human) TCLO: 200 ppm/4h *

[PPG]

Oral (Rat) LD50: 10768 mg/kg

Inhalation (Rat) LC50: 390 ppm/4h

Intraperitoneal (Mouse) LD50: 1230 mg/kg

Oral (Rabbit) LD50: 3200 mg/kg

Oral (Guinea) pig: LD50 4700 mg/kg

Intraperitoneal (Guinea) pig: LD 1500

mg/kg

The material may produce severe irritation to the eye causing pronounced inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

ALKYD RESIN SOLUTION:

"alkyd resin" describes a generic insoluble polymer which has no residual hazardous reactants and is not absorbed in the gastro-intestinal tract. No acute or chronic human exposure / toxicity data available. Almost always in solvent solution - the hazard is from the solvent.

UREA/ FORMALDEHYDE RESIN SOLUTION, BUTYLATED:

No significant acute toxicological data identified in literature search.

TALC:

TOXICITY

IRRITATION

Skin (human): 0.3 mg/3d-I Mild

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.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
xylene	IARC:3	ILOE1		
talc	IARC:3			

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: xylene Category: 3

REPROTOXIN

ILOE1: ILO Chemicals in the electronics industry that have toxic effects on reproduction: xylene

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: talc Category: 3

Section 12 - ECOLOGICAL INFORMATION

No data for wattyl Crystalac Sealer Part A.
Refer to data for ingredients, which follows:

XYLENE:

Fish LC50 (96hr.) (mg/l):	13.5
BCF<100:	2.14- 2.20
log Kow (Prager 1995):	3.12- 3.20
Half- life Soil - High (hours):	672
Half- life Soil - Low (hours):	168
Half- life Air - High (hours):	44
Half- life Air - Low (hours):	2.6
Half- life Surface water - High (hours):	672
Half- life Surface water - Low (hours):	168
Half- life Ground water - High (hours):	8640
Half- life Ground water - Low (hours):	336
Aqueous biodegradation - Aerobic - High (hours):	672
Aqueous biodegradation - Aerobic - Low (hours):	168
Aqueous biodegradation - Anaerobic - High (hours):	8640
Aqueous biodegradation - Anaerobic - Low (hours):	4320
Photolysis maximum light absorption - High (nano- m):	269.5
Photolysis maximum light absorption - Low (nano- m):	265
Photooxidation half- life water - High (hours):	2.70E+08
Photooxidation half- life water - Low (hours):	3.90E+05
Photooxidation half- life air - High (hours):	44
Photooxidation half- life air - Low (hours):	2.6

The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm sea conditions. This is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals.

Some of the material will become associated with benthic sediments, and it is likely to be spread over a fairly wide area of sea floor. Marine sediments may be either aerobic or anaerobic. The material, in probability, is biodegradable, under aerobic conditions (isomerised olefins and alkenes show variable results). Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process.

Under aerobic conditions the material will degrade to water and carbon dioxide, while under anaerobic processes it will produce water, methane and carbon dioxide.

Based on test results, as well as theoretical considerations, the potential for bioaccumulation may be high. Toxic effects are often observed in species such as blue mussel, daphnia, freshwater green algae, marine copepods and amphipods.

Drinking Water Standards:

hydrocarbon total: 10 ug/l (UK max.).

DO NOT discharge into sewer or waterways.

The material is classified as an ecotoxin* because the Fish LC50 (96 hours) is less than or equal to 0.1 mg/l

* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993
Commission of the European Communities.

N-BUTANOL:

Fish LC50 (96hr.) (mg/l):	1910- 1940
Daphnia magna EC50 (48hr.) (mg/l):	1983
Algae IC50 (72hr.) (mg/l):	650
log Kow (Prager 1995):	0.88
log Kow (Sangster 1997):	0.84
log Pow (Verschueren 1983):	0.88
Half- life Soil - High (hours):	168
Half- life Soil - Low (hours):	24
Half- life Air - High (hours):	87.7
Half- life Air - Low (hours):	8.8
Half- life Surface water - High (hours):	168
Half- life Surface water - Low (hours):	24
Half- life Ground water - High (hours):	1296
Half- life Ground water - Low (hours):	48
Aqueous biodegradation - Aerobic - High (hours):	168
Aqueous biodegradation - Aerobic - Low (hours):	24
Aqueous biodegradation - Anaerobic - High (hours):	1296
Aqueous biodegradation - Anaerobic - Low (hours):	96
Aqueous biodegradation - Removal secondary treatment - High (hours):	99%
Aqueous biodegradation - Removal secondary treatment - Low (hours):	31%
Photooxidation half- life water - High (hours):	104000
Photooxidation half- life water - Low (hours):	2602
Photooxidation half- life air - High (hours):	87.7
Photooxidation half- life air - Low (hours):	8.8

DO NOT discharge into sewer or waterways.

log Kow: 0.88

Koc: 71.6

Half-life (hr) air: 5-52

Half-life (hr) H2O surface water: 2.4-3022

Henry's atm m³ /mol: 5.57E-06

BOD 5 if unstated: 1.1-2.04,33%

COD: 1.9,92%

ThOD: 2.594

Toxicity Fish: LD100(24)1.4g/L, LC50(96)1.91g/L

Toxicity invertebrate: cell mult. inhib.8-650mg/L

Bioaccumulation: not sig

Nitriif. inhib.: 50% inhib at 8200mg/L

Effects on algae and plankton: cell mult. inhib.100-875mg/L

Degradation Biological: sig

processes Abiotic: RxnOH*

N-BUTYL ACETATE:

Fish LC50 (96hr.) (mg/l):	18
Daphnia magna EC50 (48hr.) (mg/l):	44
log Kow (Prager 1995):	1.82
Fish LC50 (96hr.) (mg/l):	100- 185
Daphnia magna EC50 (48hr.) (mg/l):	44
Algae IC50 (72hr.) (mg/l):	280
log Kow (Sangster 1997):	1.78
COD:	78%

DO NOT discharge into sewer or waterways.

Half-life (hr) air: 144

Half-life (hr) H2O surface water: 178-27156

Henry's atm m³ /mol: 3.20E-04

BOD 5 if unstated: 0.15-1.02,7%

COD: 78%

ThOD: 2.207

BCF: 4-14

Toxicity Fish: LC50(96)100-185ppm

Toxicity invertebrate: cell mult. inhib.78-3700mg/L

Effects on algae and plankton: cell mult. inhib.21-280mg/L

Degradation Biological: sig

processes Abiotic: hydroly,RxnOH*

TALC:

DO NOT discharge into sewer or waterways.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.

· Recycle containers if possible, or dispose of in an authorised landfill.
 BEWARE: Empty solvent, paint, lacquer and flammable liquid drums present a severe explosion hazard if cut by flame torch or welded. Even when thoroughly cleaned or reconditioned the drum seams may retain sufficient solvent to generate an explosive atmosphere in the drum.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID
 HAZCHEM: 3[Y]E

UNDG:
 Dangerous Goods Class: 3 Subrisk: N
 UN Number: 1263 Packing Group: I
 Shipping Name: PAINT
 PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)

Air Transport IATA:

ICAO/IATA Class: 3 ICAO/IATA Subrisk: N
 UN/ID Number: 1263 Packing Group: I
 ERG Code: 3L
 Shipping name: PAINT

Maritime Transport IMDG:

IMDG Class: 3 IMDG Subrisk: Nor
 UN Number: 1263 Packing Group: II
 EMS Number: F-E, S-E
 Shipping name: PAINT

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S5 NZS3

REGULATIONS

xylene (CAS: 1330-20-7) is found on the following regulatory lists;
 Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)
 Australia - Australian Capital Territory Environment Protection Regulation Pollutants entering waterways - Domestic water quality
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 Australia National Pollutant Inventory
 Australia Poisons Schedule
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
 IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
 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
 WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water

n-butanol (CAS: 71-36-3) is found on the following regulatory lists;
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals

n-butyl acetate (CAS: 123-86-4) is found on the following regulatory lists;
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals
 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II

alkyd resin solution (CAS No: None):
 No regulations applicable

urea/ formaldehyde resin solution, butylated (CAS: 68002-19-7) is found on the following regulatory lists;
 Australia Inventory of Chemical Substances (AICS)

talc (CAS: 14807-96-6) is found on the following regulatory lists;

Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food
 in General, Unless Otherwise Specified, in Accordance with GMP
 International Agency for Research on Cancer (IARC) Carcinogens
 OECD Representative List of High Production Volume (HPV) Chemicals

No data available for xylene as CAS: 8026-09-3.

No data available for n-butanol as CAS: 220713-25-7, CAS: 42031-19-6, CAS: 107569-51-7.

No data available for urea/ formaldehyde resin solution, butylated as CAS: 69898-34-6.

No data available for talc as CAS: 37232-12-5, CAS: 110540-41-5, CAS: 99638-63-8, CAS: 11119-41-8, CAS: 12420-12-1.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
xylene	1330-20-7, 8026-09-3
n-butanol	71-36-3, 220713-25-7, 42031-19-6, 10757
urea/ formaldehyde resin solution, butylated	68002-19-7, 69898-34-6
talc	14807-96-6, 37232-12-5, 110540-41-5, 963-8, 11119-41-8, 12420-12-1

REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoint	CR	Adeq TLV
xylene	1.5 mg/m ³	10	D	NA	-

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.
 CR = Cancer Risk/10000; UF = Uncertainty factor:
 TLV believed to be adequate to protect reproductive health:
 LOD: Limit of detection
 Toxic endpoints have also been identified as:
 D = Developmental; R = Reproductive; TC = Transplacental carcinogen
 Jankovic J., Drake F.: A Screening Method for Occupational Reproductive
 American Industrial Hygiene Association Journal 57: 641-649 (1996).

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