

A NEW FORCE IN CHEMICAL MANUFACTURING

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SAFETY DATA SHEET

Clearcote ACC Acrylic Conformal Coating

Section 1 - Identification of The Material and Supplier

Chemtools Pty Ltd Phone: 1300 738 250 (business hours)

Unit 2/14-16 Lee Holm Road Fax: 02 9623 3670 St Marys NSW 2760 www.chemtools.com.au

Chemical nature: Circuit board coating.

Product Name: Clearcote ACC Acrylic Conformal Coating

Product Code: CT-ACC

Product Use: For use in electronics industry as coating for plastic circuit boards.

Creation Date: February, 2023

This version issued: February, 2023 and is valid for 5 years from this date.

Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

SUSMP Classification: S5

ADG Classification: Class 3: Flammable liquids.

UN Number: 1263, PAINT







GHS Signal word: DANGER

Flammable liquids Category 2

Acute Toxicity Oral Category 5

Aspiration Hazard Category 1

Skin Corrosion /Irritation Category 2

Serious eye damage/eye irritation Category 2/2A

Acute Toxicity Inhalation Category 4

Specific Target Organ Toxicity - Single Exposure Category 3

Reproductive Toxicity Category 1A

Specific Target Organ toxicity - repeated exposure Category 2

HAZARD STATEMENT:

H225: Highly flammable liquid and vapour.

H303: May be harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H336: May cause drowsiness or dizziness.

H360: May damage fertility or the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

PREVENTION

P201: Obtain special instructions before use.

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P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P271: Use only outdoors or in a well ventilated area.

P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P312: Call a POISON CENTRE or doctor if you feel unwell.

P362: Take off contaminated clothing and wash before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313: If skin irritation occurs: Get medical advice.

P337+P313: If eye irritation persists: Get medical advice or attention.

P381: Eliminate all ignition sources if safe to do so.

P370+P378: In case of fire: Use carbon dioxide, dry chemical, foam, to extinguish.

STORAGE

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

Statement of Hazardous Nature (New Zealand)

Surface Coatings and Colourants (Flammable) Group Standard 2020 - HSR002662

DG Classification: Classified as a Dangerous Good for transport in accordance with the Land Transport Rule Dangerous Goods 2005 and NZS 5433:2007.

Emergency Overview

Physical Description & Colour: Clear liquid.

Odour: Solvent odour.

Major Health Hazards: Toluene is harmful or fatal if swallowed. Harmful if inhaled or absorbed through skin. Vapour is harmful. Flammable liquid and vapour. May affect liver, kidneys, blood system, or central nervous system. Causes irritation to skin, eyes and respiratory tract. may be fatal if swallowed and enters airways, may damage fertility or the unborn child, causes skin irritation, causes serious eye irritation, may cause damage to organs through prolonged or repeated exposure, may cause drowsiness or dizziness. This product is a cumulative poison. Minor exposures over a period of time may lead to serious health problems.

Section 3 - Composition/Information on Ingredients

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Ingredients	CAS No	Conc, %	TWA (mg/m ³)	STEL (mg/m³)
Toluene	108-88-3	<30	191	574
Xylene	1330-20-7	<25	350	655
Methyl ethyl ketone	78-93-3	<25	445	890
n-Butyl acetate	123-86-4	<10	713	950
n-Butanol	71-36-3	<10	152	Peak
1-methoxy-2-acetoxypropane	108-65-6	<10	274	548
Benzene, ethyl-	100-41-4	<5	434	543
Benzyl butyl phthalate	85-68-7	<5	not set	not set
Other non-hazardous ingredients	various	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

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The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Seek urgent medical attention. Flush contaminated area with lukewarm, gently flowing water for at least 60 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts).

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Immediately contact a Poisons Information Centre, or call a doctor. Wash mouth with water. If vomiting occurs naturally, lay patient on side, in recovery position as there is a chance that vomitus may enter airways causing harm to lungs.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: Highly flammable liquid and vapour. The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding materials. Water spray may be used to cool packages involved in a fire, reducing the chances of an explosion. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures. **Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include polyvinyl alcohol, Teflon, PE/EVAL, butyl rubber. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

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Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10. Take special care if handling this product over extended periods as it is a cumulative poison.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination and possible evaporation. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 2500kg or L of Dangerous Goods of Packaging Group II, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m³)	STEL (mg/m³)
Toluene	191	574
Xylene	350	655
Methyl ethyl ketone	445	890
n-Butyl acetate	713	950
n-Butanol	152	Peak
1-methoxy-2-acetoxypropane	274	548
Ethyl benzene	434	543

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles must be worn when this product is being used. Failure to protect your eyes may lead to severe harm to them or to general health. Emergency eye wash facilities must also be available in an area close to where this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: polyvinyl alcohol, Teflon, PE/EVAL, butyl rubber.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & colour: Clear liquid.
Odour: Solvent odour.
Boiling Point: 56-145°C at 100kPa

Flash point: >-7°C
Upper Flammability Limit: No data.
Lower Flammability Limit: No data.
Autoignition temperature: No data.

Flammability Class: Flammable Category 2 (GHS): Highly Flammable (AS1940).

Freezing/Melting Point: No specific data. Liquid at normal temperatures.

Volatiles: No data. Vapour Pressure: No data.

Vapour Density: Heavier than air.

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Specific Gravity: 0.92-0.95 at 20°C **Water Solubility:** Partially soluble.

pH: No data.

Volatility: No data.

Odour Threshold: No data.

Evaporation Rate: No data.

Coeff Oil/water Distribution: No data.

Autoignition temp: No data.

article Characteristics: Not applicable for liquids.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition. Handle and open containers carefully. Any electrical equipment in the area of this product should be flame proofed.

Incompatibilities: oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: Chronic Exposure - Toluene:

Reports of chronic poisoning describe anaemia, decreased blood cell count and bone marrow hypoplasia. Liver and kidney damage may occur. Repeated or prolonged contact has a defatting action, causing drying, redness, dermatitis. Exposure to toluene may affect the developing foetus.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or impaired liver or kidney function may be more susceptible to the effects of toluene. Alcoholic beverage consumption can enhance the toxic effects of this substance. This product may attack lungs, gastrointestinal system, eyes, skin. Ingredients in this product have an established TWA, so exposure by inhalation should be avoided.

Classification of Hazardous Ingredients

Ingredient

Health Hazard Statement Codes H225, H315, H373, H360, H336, H304

Toluene

Flammable liquid – category 2

- Skin irritation category 2
- Specific target organ toxicity (repeated exposure) category 2
- Reproductive toxicity category 1A
- Specific target organ toxicity (single exposure) category 3
- Aspiration hazard category 1

Xylene

H226, H312, H332, H335, H315, H304

- Flammable liquid category 3
- Acute toxicity category 4
- Acute toxicity category 4
- Specific target organ toxicity (single exposure) category 3
- Skin irritation category 2
- Aspiration hazard category 1

Methyl Ethyl Ketone

H225, H319, H335, H336, AUH066

- Flammable liquid category 2
- Eye irritation category 2A
- Specific target organ toxicity (single exposure) category 3
- Specific target organ toxicity (single exposure) category 3

N-butyl Acetate

H226, H336, AUH066

Flammable liquid – category 3

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• Specific target organ toxicity (single exposure) – category 3

N-butanol

H226, H302, H335, H315, H318, H336

- Flammable liquid category 3
- Acute toxicity category 4
- Specific target organ toxicity (single exposure) category 3
- Skin irritation category 2
- Specific target organ toxicity (single exposure) category 3
- Eye damage category 1

1-methoxy-2-acetoxypropane

H226

Flammable liquid – category 3

Benzene, ethyl-

H225, H332, H319, H315, H304, H373

- Flammable liquid category 2
- Acute toxicity category 4
- Eye irritation category 2A
- Skin irritation category 2
- Aspiration hazard category 1
- Specific target organ toxicity (repeated exposure) category 2

Benzyl butyl phthalate

H360Df, H410

- Reproductive toxicity category 1B
- Hazardous to the aquatic environment (acute) category 1
- Hazardous to the aquatic environment (chronic) category 1

Potential Health Effects

Inhalation:

Short Term Exposure: High vapour pressures may cause drowsiness and dizziness. However product is unlikely to cause any discomfort or irritation.

Long Term Exposure: Vapours may cause drowsiness and dizziness.

Skin Contact:

Short Term Exposure: This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but if treated promptly, all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is a severe eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms such as swelling of eyelids and blurred vision may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment is likely to cause permanent damage.

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. This product, while believed to be not harmful, is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested in significant quantities. Because of the low viscosity of this product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to remove and can cause severe injury or death. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Long Term Exposure: Long term minor exposures to this product may cause serious health effects.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: Toluene is Class 3 - unclassifiable as to carcinogenicity to humans.

Xylene is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

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Section 12 - Ecological Information

Insufficient data to be sure of status.

Environmental Fate:

When released into the soil, toluene may evaporate to a moderate extent and is expected to leach into groundwater. However, it may biodegrade and evaporate to a moderate extent in soil. When released into water, toluene may biodegrade but not readily but may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, toluene is expected to have a half-life of less than 1 day. This material is not expected to significantly bioaccumulate. Toluene has a log octanol-water partition coefficient of less than 3.0. Bioconcentration factor = 13.2 (eels).

Environmental Toxicity:

Toluene is expected to be toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/L.

Section 13 - Disposal Considerations

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable in-house, consider controlled incineration, or contact a specialist waste disposal company.

Section 14 - Transport Information

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

UN Number: 1263, PAINT Hazchem Code: •3YE Special Provisions: 163

Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Dangerous Goods Class: Class 3: Flammable liquids.

Packing Group: II

Packing Instruction: P001, IBC02

Class 3 Flammable Liquids shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 2.1 (Flammable Gases where flammable liquids and flammable gases are both in bulk), 2.3 (Toxic Gases), 4.2 (Spontaneously Combustible Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances, except Flammable Liquid is nitromethane), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases except where the Flammable Liquids and Flammable Gases are in bulk), 2.2 (Non-Flammable Non-Toxic Gases), 4.1 (Flammable Solids), 4.3 (Dangerous When Wet Substances), 6 (Toxic Substances, where Flammable Liquid is nitromethane), 8 (Corrosive Substances), 9 (Miscellaneous Dangerous Goods), Foodstuffs or foodstuff empties.

Section 15 - Regulatory Information

Australia:

AllC: All of the significant ingredients in this formulation are compliant with AlCIS regulations. The following ingredients: Toluene, Xylene, Methyl ethyl ketone, are mentioned in the SUSMP.

New Zealand:

Surface Coatings and Colourants (Flammable) Group Standard 2020 – HSR002662

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)

AICS/AIIC Australian Inventory of Industrial Chemicals

SWA Safe Work Australia, formerly ASCC and NOHSC

CAS number Chemical Abstracts Service Registry Number

Hazchem Code Emergency action code of numbers and letters that provide information to emergency

services especially firefighters

IARC International Agency for Research on Cancer

NOS Not otherwise specified

NTP National Toxicology Program (USA)

SUSMP Standard for the Uniform Scheduling of Medicines & Poisons

UN Number United Nations Number

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THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

Australia:

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (July 2020) and GHS Revision 7

New Zealand

HSNO Approved Code of Practice: Preparation of Safety Data Sheets. New Zealand Chemical Industry Council September 2006.