COLD BOND ADHESIVE HARDNER – MATERIAL SAFETY DATA SHEET

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Date last reviewed	04/05/2021 ☐ Not reviewed	**Next review**	04/05/2026
Manufacture/Importer Details			
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SECTION 1 PRODUCT IDENTIFICATION

Product Name: **Elastotec Cold Bond Adhesive Hardener**

Recommended Use: Cross linking agent for polyurethane and neoprene adhesives.

SECTION 2: HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.

Signal Word: Danger

Hazard Classifications:
Flammable Liquids – Category 2
Serious Eye Damage/Irritation – Category 2A
Sensitisation – Respiratory – Category 1
Specific Target Organ Toxicity (Single Exposure) – Category 3 Narcotic Effects

Hazard Statements	
H225	Highly flammable liquid and vapour.
AUH066	Repeated exposure may cause skin dryness or cracking.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.

Prevention Precautionary Statements	
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting and all other equipment.

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SECTION 2: HAZARDS IDENTIFICATION

P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust, fume, gas, mist, vapours or spray.
P264	Wash hands, face and all exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective clothing, gloves, eye/face protection and suitable respirator.
P285	In case of inadequate ventilation wear respiratory protection.
Response Precautionary Statements	
P101	If medical advice is needed, have product container or label at hand.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304 + P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P370 + P378	In case of fire: Use foam, dry chemical or carbon dioxide extinguishers (Do NOT use water jets) for extinction.
Storage Precautionary Statements	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Disposal Precautionary Statement	
P501	Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule: Not Applicable

Dangerous Good Classification

Classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail” and the “New Zealand NZS5433: Transport of Dangerous Goods on Land”.

Dangerous Goods Class: 3

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SECTION 3: COMPOSITION INFORMATION

Chemical Entity	Cas No.	Proportion
Acetic acid, ethyl ester	141-78-6	>60% (w/w)
Phenol, 4-isocyanato-, phosphorothioate (3:1) (ester)	4151-51-3	10 – <30% (w/w)
Benzene, chloro-	108-90-7	<1% (w/w)
Ingredients determined to be Non-Hazardous		Balance

SECTION 4: FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre.
(Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Effects may be delayed. Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye Contact: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to Physician: Treat symptomatically. Effects may be delayed. Extreme caution must be taken to prevent aspiration.

Aggravated Medical Conditions Caused By Exposure: Exposure may aggravate existing conditions including skin sensitisation and dermatitis.

SECTION 5: FIRE FIGHTING MEASURES

Hazchem Code: •3YE

Suitable Extinguishing Media: If material is involved in a fire use alcohol resistant foam or dry agent (carbon dioxide, dry chemical powder).

Specific Hazards: Highly flammable liquid and vapour. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

Fire Fighting Further Advice: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spills: Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

Large Spills: If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 14

SECTION 7: HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition.

Store locked up. Keep container standing upright. Keep containers closed when not in use – check regularly for leaks.

This material is classified as a Class 3 Flammable Liquid as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		Notices
	ppm	mg/m^3	ppm	mg/m^3	
Chlorobenzene	10	46	–	–	–
Ethyl acetate	200	720	400	1440	–

As published by Safe Work Australia.

TWA – The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

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Biological Limit Values:	As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.
Engineering Measures:	Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.
Personal Protection Equipment:	SAFETY SHOES, OVERALLS, GLOVES, APRON, SAFETY GLASSES, RESPIRATOR. Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted. Wear safety shoes, overalls, gloves, apron, safety glasses, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from an impervious material should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Refer to AS/NZS 2161. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
Hygiene Measures:	Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Yellowish to Brownish
Odour:	Strong Fruity Odour
Solubility:	Insoluble (Reacts with water)
Specific Gravity (20°C):	ca. 1.0 g/cm^3 at 20°C
Density:	N Av
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20°C):	97 hPa / 20°C.
Flash Point (°C):	ca. -4°C (DIN 51755)
Flammability Limits (%):	2.2% (V) – 11.5% (V)
Autoignition Temperature (°C):	ca. 460°C
Melting Point/Range (°C):	N App
Boiling Point/Range (°C):	ca. 77°C at 1.013hPa
pH:	N App
Viscosity:	Water Thin

(Typical values only – consult specification sheet)
N Av = Not available, N App = Not applicable

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SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	This material is thermally stable when stored and used as directed.
Conditions to Avoid:	Sources of ignition i.e. flames.Heat i.e. direct sunlight. Contact with incompatible materials i.e. water.
Incompatible Materials:	Strong oxidisers, alcohols, amines and water.
Hazardous Decomposition Products:	Oxides of carbon and nitrogen, hydrogen cyanide.
Hazardous Reactions:	Exothermic reaction with amines and alcohols; reacts withwater forming CO2; in closed containers, risk of bursting owing to increase of pressure.

SECTION 11: TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation:	Material may be an irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness and possibly death. A respiratory sensitiser. Can cause possible allergic reactions.
Skin Contact:	Contact with skin may result in irritation including itching, redness or rash. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
Ingestion:	Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract. Ingestion may also lead to aspiration of material into the lungs and central nervous system (CNS) depression. CNS effects include dizziness, drowsiness, confusion, headache, muscular weakness and loss of consciousness. Prolonged exposure to a large quantity can ultimately lead to coma and possibly death.
Eye Contact:	An eye irritant. Symptoms may include redness, stinging, pain, tearing or swelling. Prolonged or repeated eye contact may result in corneal clouding.

Acute Toxicity

Inhalation:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L
Skin Contact:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg bw
Ingestion:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg bw
Corrosion/Irritancy:	Eye: this material has been classified as a Category 2A Hazard (reversible effects to eyes). Skin: this material has been classified as not corrosive or irritating to skin.
Sensitisation:	Inhalation: this material has been classified as a Category 1 Hazard (respiratory sensitiser). Skin: this material has been classified as not a skin sensitiser.
Aspiration Hazard:	This material has been classified as non-hazardous.
Specific Target Organ Toxicity (Single Exposure):	This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in depression of the central nervous system.

Chronic Toxicity	
Mutagenicity:	This material has been classified as non-hazardous.
Carcinogenicity:	This material has been classified as non-hazardous.
Reproductive Toxicity (Including Via Lactation):	This material has been classified as non-hazardous.
Specific Target Organ Toxicity (Repeat Exposure):	This material has been classified as non-hazardous.

SECTION 12: ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute Aquatic Hazard:	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L
Long-Term Aquatic Hazard:	This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow < 4.
Ecotoxicity	
Toxicity to Fish:	LC0 15,2 mg/l Test species: Brachydanio rerio (zebra fish) Duration of test: 96 h Method: OECD Test Guideline 203
Acute Toxicity for Daphnia:	EC0 6,6 mg/l Test species: Daphnia magna (Water flea) Duration of test: 24 h Method: OECD Test Guideline 202
Acute Bacterial Toxicity:	EC50 > 10.000 mg/ Tested on: activated sludge Method: OECD Guideline for Testing of Chemicals, No.209
Acute Toxicity for Algae:	EC0 2,4 mg/l Tested on: scenedesmus subspicatus Duration of test: 72 h Method: OECD Test Guideline 201
Persistence and Degradability	
Ethyl Acetate:	100% 28 d, i.e. readily biodegradable Method: OECD Guideline for Testing of Chemicals, No.301 D
Chlorobenzene:	15% 28d, i.e. not readily degradable Method: OECD Guideline for Testing of Chemicals, No.301 C
Bioaccumulative Potential:	No information available.
Mobility:	No information available.
Further Information on Ecology:	The product reacts with water at the interface forming CO2 and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by watersoluble solvents. Previous experience shows that polyurea is inert and non-degradable.

SECTION 13: DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

SECTION 14: TRANSPORT INFORMATION

Road and Rail Transport

Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

UN No:	1993
Dangerous Goods Class:	3
Packing Group:	II
Hazchem Code:	•3YE
Emergency Response Guide No:	14
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHYL ACETATE)
Segregation Dangerous Goods:	Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2), toxic substances (Class 6.1), infectious substances (Class 6.2) or radioactive substances (Class 7). Exemptions may apply.

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. This material is classified as a Marine Pollutant (P) according to the International Maritime Dangerous Goods Code.

UN No:	1993
Dangerous Goods Class:	3
Packing Group:	II
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHYL ACETATE)

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No:	1993
Dangerous Goods Class:	3
Packing Group:	II
Proper Shipping Name:	FLAMMABLE LIQUID, N.O.S. (CONTAINS ETHYL ACETATE)

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SECTION 15: REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
International Convention for the Prevention of Pollution from Ships (MARPOL)

This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)
Wastes from the production, formulation and use of organic solvents

This material/constituent(s) is covered by the following requirements:

All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

SECTION 16: OTHER INFORMATION

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.