

Section 1. Identification.

Product identifier	LuciClear Casting Resin Hardener
Recommended use and restrictions on use.	Casting and Embedding Epoxy
Details of manufacturer	Boatcraft Pacific Pty. Ltd. 14 Dulwich St., Loganholme Qld 4129. Australia +61 7 3806 1944 www.boatcraft.com.au
Emergency Phone Number	Poisons Information Line 13 11 26 Boatcraft Pacific +61 7 3806 1944

Section 2. Hazard(s) Identification.

Classification of the hazardous chemical
 Eye Damage 1 Causes serious eye damage
 Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.
 Acute Toxicity 4 Harmful if swallowed
 Acute Toxicity 4 Harmful in contact with skin



DANGER

Causes serious eye damage. Toxic to aquatic life with long lasting effects.	Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to environment.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.	
IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.	

Section 3. Composition and Information on Ingredients.

Name	Cas No.	Proportion
Complex triamine. Trade Secret. Call for details.		>60%
1,6-Diamino-2,2,4(2,4,4)-Trimethylhexane	25620-58-0	<30%
m-Xylene a,a'-diamine	1477-55-0	<10%
4-(2,4-dimethylheptan-3-yl)phenol	25154-52-3	<10%
3,6-Diazaoctanethylenediamin	112-24-3	<10%
3,6,9-Triazaundecamethylenediamine	112-57-2	<10%
2-Piperazin-1-ylethanamine	140-31-8	<10%
2,2'-Iminodiethanol	111-42-2	<10%
Tris(2-hydroxyethyl)amine	102-71-6	<10%

The composition of our products varies from time to time for technical and commercial reasons. Not all of the listed ingredients are present in any specific product, although any of them could be present. The classification and risk data and information covers all the possible ingredients.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First Aid Measures.

Inhalation	IF INHALED. Move to fresh air. If rapid recovery does not occur, seek medical attention.
Ingestion	IF SWALLOWED: Drink water. Do not induce vomiting. If patient needs to vomit, lower head so that material does not enter lungs. Obtain medical assistance urgently. Activated charcoal may be helpful.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice/attention.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. Citrus based hand cleaner with pumice is useful. If skin irritation occurs: Seek medical advice/attention. Take off contaminated clothing and wash before reuse.
Note to Physician	No particular measures are known – treat according to symptoms.

Section 5. Fire Fighting Measures.

Extinguishing Media	Foam, CO ₂ , extinguishing powder or water fog or fine spray. Fight larger fires with water fog or fine spray or alcohol-resistant foam
Specific Hazards	Formation of toxic gases is possible during heating or in case of fire.
Fire Fighters	Put on breathing apparatus if material is involved in fire.
Hazchem Code	2YE

Section 6. Accidental Release Measures.

Small Spills	Absorb spillage with sand, sawdust, earth, or any suitable absorbent material.
Large Spills	Prevent material from entering waterways, drains or sewers. Consider bunding. Use sand, sawdust or earth to absorb the material. Dispose of the contaminated material as waste according to section 13.

Section 7. Handling, Storage and Safe Use.

Handling	Use with adequate ventilation. Vapour is heavier than air. Use suitable protective equipment. Eye protection is important. Latex or Nitrile Rubber Gloves are acceptable Avoid contact with eyes, skin and clothing. Eating, drinking and smoking in work areas is prohibited.
Storage	Store only in original containers. Store away from food stuffs. Keep container tightly sealed. Store between 2°C and 40°C.
Suitable Packaging Materials	High Density Polyethylene

Section 8. Exposure Controls.

Exposure Limits	Material	TWA		STEL		Notices
		ppm	mg/m ³	ppm	mg/m ³	
	m-Xylene a,a'-diamine		0.1 Peak (15mins)			Sk.
	Tris(2-hydroxyethyl)amine		5			Sen.
	2,2'-Iminodiethanol	3	13			
Engineering Controls	Use only with adequate ventilation. Keep containers closed.					
Personal Protection	Safety glasses with side shields Organic Vapour respirator in enclosed spaces Gloves. Latex, EVAL. Butyl Rubber, or Nitrile may give longest time to breakthrough. Clothing which covers arms, legs and torso. In case of inadequate ventilation, wear suitable respiratory equipment Advice on personal protection equipment is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.					

Sk. Absorption through the skin may be a significant source of exposure.

Sen. Sensitizer

Section 9. Physical and Chemical properties.

Appearance	Liquid
Odour	Ammonia like
Specific Gravity	0.966
pH	11
Boiling Point and boiling range (°C)	236°C
Flash Point (°C)	>200C
Self-inflammability	Product is not self igniting
Danger of Explosion	Product is not explosive
Vapour Density (air = 1)	
Vapour pressure (20°C)	>0.13 at 20°C
Solubility	562g/litre.
Viscosity	110 mm ² /s

Section 10. Stability and Reactivity.

Chemical Stability	The product is stable.
Incompatible Materials	Strong acids, strong bases, Strong oxidising agents.

Section 11. Toxicological Information.

Acute Effects	Mixture	
	Ingestion	LD50 >1000mg/kg [§]
	Eye	Severe Irritant
	Dermal	Irritant
Long term Effects	If skin irritation or rash occurs: Get medical advice/attention.	

§ Acute Toxicity Estimate calculated using the methods set out in the GHS 2009 3rd Ed GHS 2013 5th Edition Part 3, Health Effects.

Component Toxicities.

Name	Oral LD50 mg/kgm	Dermal LD50 mg/kgm	Inhalation LC50/4hr mg/l	Notes
Trimethylolpropane poly (oxypropylene) triamine	550(rat)	>1000(rat)	*	
m-Xylene a,a'-diamine	930(rat)	*	*	
4-(2,4-dimethylheptan-3-yl)phenol	1900 (rat)	>2000(rabbit)	*	
3,6-Diazaoctanethylenediamin	3250(rat)	660(rat)	*	
1,6-Diamino-2,2,4(2,4,4)-Trimethylhexane	910 (rat)	*	*	
3,6,9-Triazaundecamethylenediamine	8550 (rabbit)	*	*	
Tris(2-hydroxyethyl)amine	7200 (rat)	2000(rabbit)	No mort.	
2-Piperazin-1-ylethanamine	>1470(rat)	866(rabbit)	21.4	
2,2'-Iminodiethanol	1600(rat)	12970(rabbit)	No mort.	

Notes: * No data available. Sk. Absorption through the skin may be a significant source of exposure.

Section 12. Ecological Information.

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and Degradability	No data
Bioaccumulative Potential	No data
Mobility in Soil	No data

Component Toxicities.

Name	LDLo50 Fish mg/L	LC50 Crusta mg/L	LC50 Algae mg/L	Bio- degrade- ability	Mobility	Bio- acumulative
Trimethylolpropane poly (oxypropylene) triamine	>100	13	4.4	*	*	*
m-Xylene a,a'-diamine	*	*	*	*	*	*
4-(2,4-dimethylheptan-3-yl)phenol	0.31	0.043	1.3	*	*	Low
3,6-Diazaoctanethylenediamin	*	*	*	*	*	*
1,6-Diamino-2,2,4(2,4,4)-Trimethylhexane	174	31.5	29.5	*	*	*
3,6,9-Triazaundecamethylenediamine	420	14.6	2.1	*	*	*
Tris(2-hydroxyethyl)amine	11800	2038	216	*	*	Low
2-Piperazin-1-ylethanamine	368	32	494	*	*	*
2,2'-Iminodiethanol	*	*	*	*	*	*

* No data available. # Harmful

Section 13. Disposal Considerations.

	Dispose of all empty containers as per State and Council Regulations. Do not burn empty containers or product. Do not bury product or empty containers. Do not dispose of near waterways, vegetation and tree roots. Excess product can be mixed with an equal amount of part A and disposed of as non hazardous solid waste when cured.
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Section 14. Transport Information.

	UN. No.	UN3082
	Proper Shipping Name	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trimethylolpropane poly (oxypropylene)triamine)
	Class	9
	Subsidiary Risk	Nil
	Packaging Group	III
	Hazchem Code	2YE
	EPG	Not applicable
	Segregation	Not applicable
	For road, marine and air transport this product is not classified as dangerous goods within the context of National and International Transport Regulation.	

Section 15. Regulatory Information.

Poisons Schedule (SUSMP) Schedule 5.

Section 16. Other.

Date of Preparation.	1 Dec 2018
Date of Revision.	8 March 2019
Reason for Issue	Product Name

Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice February 2016
 Labelling of Workplace Hazardous Chemicals - Code of Practice September 2015
 Poisons Standard (SUSMP) February 2017
 Queensland Work Health and Safety Regulation 2011
 ADG7 October 2011 Section 2.9.3.3
 GHS 2009 3rd Edition
 GHS 2013 5th Edition Health effects 03e_part3
 GHS 2013 5th Edition Environmental Hazards 04e_part4

Abbreviations

ADG7	Australian Code for the Transport of Dangerous goods by Road & Rail, 7 th Edition	LD50	Lethal dose for 50% of the test population
C.A.S.	Chemical Abstracts Service Number	LOEC	Lowest Observable Effective Concentration
EC50	Half Maximal Effective Concentration	mg	milligram
EPG	Emergency procedure guide	Mg/m ³	Milligram per cubic metre
ErC50	Means EC50 in terms of reduction of growth rate	N.O.S.	Not Otherwise Specified
GHS	Globally Harmonized System of Classification and Labelling of Chemicals	ppm	Parts per million
kg	Kilogram	PVC	Polyvinyl Chloride
L	Litre	STEL	Short Term Exposure Limit
LC50	Lethal concentration for 50% of the test population	TWA	Time Weighted Average