

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name EPOXY REFINISHING KIT, CLEAR PART A
Synonyms 10-100 • 10-110 • 10-112 • 10-113 • A30100 • A30102 • EX2-1025

1.2 Uses and uses advised against

Uses EPOXY RESIN SYSTEM

1.3 Details of the supplier of the product

Supplier name THE ENERGY NETWORK (AUST) PTY LTD
Address 2B / 605 Zillmere Road, Zillmere, QLD, 4034, AUSTRALIA
Telephone (07) 3212 8999
Fax (07) 3212 8998
Email sales@tengroup.com.au
Website <http://www.tengroup.com.au>

1.4 Emergency telephone numbers

Poison Information 13 11 26
Centre

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Flammable Liquids: Category 2

Health Hazards

Skin Corrosion/Irritation: Category 2
 Skin Sensitisation: Category 1
 Serious Eye Damage / Eye Irritation: Category 2A
 Specific Target Organ Toxicity (Single Exposure): Category 3 (Respiratory Irritation)
 Specific Target Organ Toxicity (Single Exposure): Category 3 (Narcotic Effects)
 Germ Cell Mutagenicity: Category 1B
 Carcinogenicity: Category 2
 Toxic to Reproduction: Category 1A
 Repeated exposure may cause skin dryness or cracking.

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word DANGER

Pictograms



PRODUCT NAME EPOXY REFINISHING KIT, CLEAR PART A

Hazard statements

AUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.

Prevention statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response statements

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person 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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment is advised - see first aid instructions.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage statements

P403 + P233 + P235	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405	Store locked up.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.
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2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
EPOXY RESIN AND BISPHENOL A POLYMER	25036-25-3	607-500-3	20 to 30%
ETHYL ACETATE	141-78-6	205-500-4	20 to 30%
METHYL ISOBUTYL KETONE	108-10-1	203-550-1	20 to 30%
2,6-DIMETHYLHEPTAN-4-ONE	108-83-8	203-620-1	5 to 10%
4-HYDROXY-4-METHYL-2-PENTANONE (DIACETONE ALCOHOL)	123-42-2	204-626-7	5 to 10%
ETHANOL	64-17-5	200-578-6	1 to 5%
TOLUENE	108-88-3	203-625-9	1 to 5%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder
4,6 DIMETHYL-2-HEPTANONE	19549-80-5	243-148-3	1 to 5%

4. FIRST AID MEASURES

PRODUCT NAME EPOXY REFINISHING KIT, CLEAR PART A

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

Irritating to the eyes and skin. May cause sensitisation by skin contact.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

Highly flammable. May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones, etc when handling. Earth containers when dispensing fluids.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

- 3YE
- 3 Alcohol Resistant Foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
- Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.
- E Evacuation of people in and around the immediate vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

PRODUCT NAME EPOXY REFINISHING KIT, CLEAR PART A

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should have appropriate ventilation systems. Store between 4°C and 35°C.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Diacetone alcohol	SWA [AUS]	50	238	--	--
Diacetone alcohol	SWA [Proposed]	20	96	--	--
Diisobutyl ketone	SWA [AUS]	25	145	--	--
Ethanol	SWA [AUS]	1000	1880	--	--
Ethanol (Ethyl alcohol)	SWA [Proposed]	200	380	800	1500
Ethyl acetate	SWA [AUS]	200	720	400	1440
Methyl isobutyl ketone	SWA [AUS]	50	205	75	307
Toluene	SWA [AUS]	50	191	150	574
Toluene	SWA [Proposed]	20	75	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling Time	BEI
METHYL ISOBUTYL KETONE	ACGIH BEI	Methyl isobutyl ketone in urine	End of shift	1 mg/L
TOLUENE	ACGIH BEI	o-Cresol in urine (with hydrolysis)	End of shift	0.3 mg/g creatinine
	ACGIH BEI	Toluene in urine	End of shift	0.03 mg/L
	ACGIH BEI	Toluene in blood	Prior to last shift of workweek	0.02 mg/L

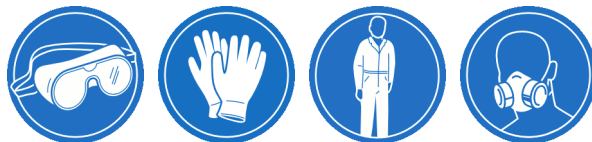
8.2 Exposure controls

Engineering controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back.

PPE

Eye / Face	Wear splash-proof goggles.
Hands	Wear PVA or Viton® or nitrile gloves.
Body	Wear coveralls. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.
Respiratory	Wear a Type A (organic vapour) / Organic vapour respirator. If sanding dry product, wear a Class P1 (particulate) / N95 respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line / Full Facepiece Supplied-Air Respirator (SAR).



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	LIQUID
Odour	SOLVENT ODOUR
Flammability	HIGHLY FLAMMABLE
Flash point	-5°C

9.1 Information on basic physical and chemical properties

Boiling point	114°C
Melting point	NOT AVAILABLE
Evaporation rate	< 1 (Ether = 1)
pH	NOT AVAILABLE
Vapour density	> 1 (Air = 1)
Relative density	NOT AVAILABLE
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT AVAILABLE
Lower explosion limit	NOT AVAILABLE
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

Specific gravity	0.91
VOC	691 g/L

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Hazardous polymerisation is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met: LD50 (oral): 4653 mg/kg . LC50 (inhalation): 30 mg/L.
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PRODUCT NAME EPOXY REFINISHING KIT, CLEAR PART A**Information available for the ingredients:**

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
EPOXY RESIN AND BISPHENOL A POLYMER	2-19 g/kg (rat)	--	--
ETHYL ACETATE	4100 mg/kg (mouse)	--	1600 ppm/8hrs (rat)
METHYL ISOBUTYL KETONE	1600 mg/kg (guinea pig); 2080 mg/kg (rat)	> 20 mL/kg (rabbit)	100 mg/L (rat)
2,6-DIMETHYLHEPTAN-4-ONE	1416 mg/kg (mouse)	--	--
4-HYDROXY-4-METHYL-2-PENTANONE (DIACETONE ALCOHOL)	3,002 mg/kg (rat)	13,630 mg/kg (rabbit)	--
ETHANOL	3450 mg/kg (mouse)	--	20000 ppm/10 hours (rat)
TOLUENE	5580 mg/kg (rat)	5000 mg/kg (rabbit)	25.7 - 30 mg/L/4hrs (rat)

Skin	Contact may result in irritation, redness, rash and dermatitis. Repeated exposure may cause skin dryness or cracking.
Eye	Contact may result in irritation, lacrimation, pain and redness.
Sensitisation	May cause an allergic skin reaction. This product is not classified as a respiratory sensitiser.
Mutagenicity	May cause genetic defects.
Carcinogenicity	Suspected of causing cancer. Methyl isobutyl ketone is classified as a possible human carcinogen (IARC Group 2B).
Reproductive	Over exposure to toluene may damage fertility or the unborn child.
STOT - single exposure	Over exposure may result in irritation of the nose and throat with coughing, as well as central nervous system (CNS) effects including headache, drowsiness and dizziness.
STOT - repeated exposure	Repeated exposure to some solvents have been reported to cause adverse effects to the central nervous system (CNS), liver and kidney.
Aspiration	Aspiration into the lungs may result in chemical pneumonitis and pulmonary oedema.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

SOIL: If aromatic hydrocarbons are released to soil, they will evaporate from near-surface soil & leach to groundwater. WATER: Biodegradation of aromatics occurs both in soil & groundwater but may be slow. Isocyanates will react with water producing carbon dioxide. ATMOSPHERE: Aromatic hydrocarbons will exist largely as vapour. Half life in atmosphere varies, (eg 1-2 days (xylene); 3 hrs-1 day (toluene)).

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal	Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.
Legislation	Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1263	1263	1263
14.2 Proper Shipping Name	PAINT	PAINT	PAINT
14.3 Transport hazard class	3	3	3
14.4 Packing Group	II	II	II

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

Hazchem code	●3YE
GTEPG	3C1
EmS	F-E, S-E

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule	Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
Inventory listings	AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals) All components are listed on AIIC, or are exempt.

16. OTHER INFORMATION

Additional information	<p>EPOXY RESINS: Epoxy resins may contain low concentrations of glycidal ethers and/or epichlorohydrin, which are potential sensitising agents, both skin and respiratory. Epichlorohydrin is classified as probably carcinogenic to humans (IARC Group 2A).</p> <p>WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.</p> <p>WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.</p> <p>EPOXY - PHENOXY RESINS AND POLYURETHANES: Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a full face air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.</p>
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PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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