Cyanotec Ltd

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

MAG220 (Part A)

Revision 1

Revision date 2012-07-17

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	MAG220

1.3. Details of the supplier of the safety data sheet

Company Address Web Telephone Fax Email	Cyanotec Ltd Bay 2 Building 62 Third Avenue Pensnett Trading Estate Kingswinford DY6 7XT www.magmabond.com +44 (0) 1206 835577 +44 (0) 1206 835535 Sales@magmabond.com

SECTION 2: Hazards identification

2.1. GHS Classification

Health	Enviromental	Physical
Eye irritant 2 Skin irritant 2 Skin sensitisation	Aquatic Chronic 2	

Signal word	Warning
Hazard statement(s)	H315 Causes skin irritation. H317 May cause an allergic skin reation. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	P261 Avoid breathing vapours. P264 Wash hands thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the enviroment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P362 Take off contaminated clothing and wash before reuse. P391 Collect spillage.

SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	EINECS	%w/w	Toxicology Data
Epoxy resins (number average molecular weight ≥ 700) Reaction product of Bisphenol-A-(epichlorohydrin)	25068-38-9	500-033-5	>80	LD_{50} oral (rat): > 5,000 mg/kg LD_{50} dermal (rabbit): 20,000 mg/kg LC_{50} inhalation: no data
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	–	<20	LD_{50} oral (rat): > 2,000 mg/kg LD_{50} dermal (rabbit): 2,000 mg/kg LC_{50} inhalation: no data

MAG220 (Part A)

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
Eye contact	Contact lenses should be removed. Rinse with copious amount of water immediately. Seek medical advice if eye irritation persists.
Skin contact	Remove contaminated clothing. Rinse with copious amount of water. Get medical advice if skin irritation or a rash occurs.
Ingestion	DO NOT induce vomiting. Drink plenty of water followed by milk if available. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep warm and at rest. Contact physician if discomfort persists.
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
	Use extinguishing media appropriate to the surrounding fire conditions. Extinguishing media. Carbon dioxide (CO2). Dry chemical.Use dry chemical powder, foam, carbon dioxide, water fog.
5.2. Special fire fighting procedures	
	Keep up-wind to avoid fumes. Use self-contained breathing apparatus in confined areas.
5.3. Unusual fire/explosion hazards	
	None known.
5.4. Thermal decomposition products	
	Not limited to carbon monoxide, carbon dioxide, phenolic compounds, oxides of sulphur and barium fume.
5.5. Protective measures in fire	
	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
SECTION 6: Accidental release measures	
6.1. Personal-related safety precautions	
	Evacuate personnel to a safe area. Keep personnel away from spill. Surfaces contaminated with the product will become slippery.Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
6.2. Measure for cleaning/collecting	
	Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust, etc). Dispose of contaminated material as waste according to item 13.
6.3. Additional information	
	Prevent spillage from entering drainage/sewer systems. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.
SECTION 7: Handling and storage	
7.1. Handling	
	Ensure good ventilation during processing. Do not eat, drink or smoke while handling.
7.2. Protection against fire/explosion	
	General rules of fire prevention should be observed.
7.3. Storage	
	Keep containers and syringes tightly closed and dry. Store in a well-ventilated area, protected from direct sunlight and heat, with temperature below 30 °C.

MAG220 (Part A)

SECTION 8: Exposure controls/personal protection	
Industrial hygiene	Remove immediately all contaminated clothing. Do not inhale vapor. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke while using the product. Change clothing before leaving workplace and wash before reuse.
Hand protection	Suitable protective gloves like nitrile or viton are recommended. The breakthrough time of the selected glove must be greater than the intended use period.
Respiratory protection	An organic respirator NIOSH-approved for organic vapors is recommended where local ventilation is not adequate.
Eye protection	Protective goggles/safety glasses.

SECTION 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	
Form	Viscous liquid
Colour	Clear
Odor	Mild
Boilng temperature	Not determined
Flash point	Not determined
Solubility in water	Insoluble
Specific gravity	1.16
Vapour density	Not determined

SECTION 10: Stability and reactivity	
10.1. Stability and reactivity	
	Stable when stored under recommended conditions and no reactive hazards known.
10.2. Conditions to avoid	
	Avoid temperatures above 300 °C. At 350 °C violent decomposition might occur and cause rapid pressure build-up.
10.3. Hazardous decomposition products	
	During normal storage, hazardous decomposition will not occur. At higher temperatures, decomposition products depends on the temperature, air supply and presence of other materials. Irritant gas and vapors will be produced.
10.4. Hazardous polymerization	
	Will not occur by itself. Amines, amides and mercaptans will cause irreversible polymerization.
10.5. Incompatible materials	
	Avoid unintended contact with amines, amides, mercaptans, oxidizing materials, acids and bases.

SECTION 11: Toxicological information	
No specific oral, inhalation or dermal toxicology data is known for this product. Any toxicological data included in this section is based on the data associated with the components.	
Oral toxicity	Not classified
Dermal toxicity	Not classified
Inhalation toxicity	Not classified
Eye irritation	Eye irritant, category 2
Dermal irritation	Skin irritant, category 2
Skin sensitization	Skin sinsitiser, category 1
Carcinogenicity	Not classified
Reproductive toxicity	Not classified

MAG220 (Part A)

Additional notes on carcinongenicity	This product contains trace residual quantities of epichlorohydrin (CAS no. 106-89-8; EC no. 203-439-8). It is very unlikely that normal work practices with it in this work-place atmosphere. Nevertheless, you should be aware that epichlorohydrin has been reported to produce cancer in laboratory animals and to produce mutagenic changes in bacteria and cultured human cells.

SECTION 12: Ecological information

Ecology toxicity	Harmful to aquatic life with long lasting effects.
Persistence/degradability	Not readily biodegradable.
Bioaccumulative potential	Moderate.
Mobility	Low in soil.

Individual components of this mixture have been independently tested by the raw material suppliers and any known results have been presented above. The results for the individual components may not be representative of the ecological toxicity of this finished product. This finished product has not been tested to determine individual toxicological/ecological limits. Great caution should be taken to prevent release to the environment. See Section 13 for further information.

SECTION 13: Disposal considerations

Waste treatment methods - unused products	Should not be released into the environment. Classified as hazardous waste according to (national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste). It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Use a registered waste disposal company and supply accurate information about the nature of the hazard. Waste disposal number: 08 04 09*
Waste treatment methods - contaminated packaging	Contaminated packaging is classified as hazardous waste. Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal. Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled. Waste disposal number: 15 01 10* Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even in small quantities, should never be poured down into drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured at the proper mix ratio, may be safely landfilled.

SECTION 14: Transport information

14.1. Road transport (ADR)

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Epoxy resin
UN number	UN3082
Hazard class	9
Classification code	M6
Packing group	PG III

14.2. Marine transport (IMDG)

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Epoxy resin
UN number	UN3082
Hazard number	9
EmS	F-A, S-F
Packing group	PG III
Marine pollutant	No

14.3. Air transport (IATA)

Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Epoxy resin
UN number	UN3082
Hazard class	9
Packing group	PG III

MAG220 (Part A)

SECTION 15: Regulatory information

15.1. EU Classifications

 **Xi** Irritant  **N** Dangerous to the enviroment

15.2. EU risks(R) phrases

R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

15.3. EU safety(s) phases

S2	Keep out of reach of children.
S28	After contact with skin, wash immediately with plenty of water.
S37/39	Wear suitable gloves and eye/face protection.
S61	Avoid release to the environment. Refer to special instructions/safety data sheet.

15.4. Inventory status

All the components are listed in the Europe EINECS (as NLP), United States TSCA, Canada DSL, China IECSC, and Japan ENCS inventories.

SECTION 16 Other information

16.1. Definitions

EIENCS	European Inventory of Existing Commercial Chemical Substances.
TSCA	Toxic Substances Control Act.
DSL	Domestic Substance List.
IECSC	Inventory of Existing Chemical Substances in China.
ENCS	Existing & New Chemical Substances.
NLP	No-Longer Polymers.
TLV	Threshold Limit Value.
LD_{50}	The minimum dose required for lethal effects in 50% of a given population of test specimens.
NIOSH	National Institute for Occupational Safety and Health.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The details contained herein are based on our present state of knowledge and experience in characterizing our product with regard to any possible safety requirement.
We do, however, pass them on without any warranty or property assurances.

MAG220 (Part B)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	MAGMA ??

1.3. Details of the supplier of the safety data sheet

Company Address Web Telephone Fax Email	Cyanotec Ltd Bay 2 Building 62 Third Avenue Pensnett Trading Estate Kingswinford DY6 7XT www.magmabond.com +44 (0) 1206 835577 +44 (0) 1206 835535 Sales@magmabond.com

SECTION 2: Hazards identification

2.1. GHS Classification

Health	Enviromental	Physical
Eye irritant 2 Skin irritant 2 Skin sensitisation STOT SE 3		

Signal word	Warning
Hazard statement(s)	H315 Causes skin irritation. H317 May cause an allergic skin reation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
Precautionary statement(s)	P261 Avoid breathing vapours. P264 Wash hands thoroughly after handling. P271 Use 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. P362 Take off contaminated clothing and wash before reuse. P391 Collect spillage.

SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	EINECS	%w/w	Toxicology Data
Proprietary component(s)	Proprietary	–	>90	LD_{50} oral (rat): > 2,000 mg/kg LD_{50} dermal (rabbit): no data LC_{50} inhalation: no data
1, 3-Bis[3-(dimethylamino)propyl]urea	52338-87-1	257-861-2	<10	LD_{50} oral (rat): > 5,000 mg/kg LD_{50} dermal (rat): no data LC_{50} inhalation (rat, 4hrs): no data

MAG220 (Part B)

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
Eye contact	Contact lenses should be removed. Rinse with copious amount of water immediately. Seek medical advice if eye irritation persists.
Skin contact	Remove contaminated clothing. Rinse with copious amount of water. Get medical advice if skin irritation or a rash occurs.
Ingestion	DO NOT induce vomiting. Drink plenty of water followed by milk if available. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep warm and at rest. Contact physician if discomfort persists.
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
	Use dry chemical powder, foam, carbon dioxide, water fog.
5.2. Special fire fighting procedures	
	Keep up-wind to avoid fumes. Use self-contained breathing apparatus in confined areas.
5.3. Unusual fire/explosion hazards	
	None known.
5.4. Thermal decomposition products	
	Not limited to carbon monoxide, carbon dioxide, oxides of nitrogen, hudrogen sulphide, and oxides of sulphur.
5.5. Protective measures in fire	
	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
SECTION 6: Accidental release measures	
6.1. Personal-related safety precautions	
	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
6.2. Measure for cleaning/collecting	
	Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust, etc). Dispose of contaminated material as waste according to item 13.
6.3. Additional information	
	Prevent spillage from entering drainage/sewer systems. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.
SECTION 7: Handling and storage	
7.1. Handling	
	Ensure good ventilation during processing. Do not eat, drink or smoke while handling.
7.2. Protection against fire/explosion	
	General rules of fire prevention should be observed.
7.3. Storage	
	Keep containers and syringes tightly closed and dry. Store in a well-ventilated area, protected from direct sunlight and heat, with temperature below 30 °C.

MAG220 (Part B)

SECTION 8: Exposure controls/personal protection	
Industrial hygiene	Remove immediately all contaminated clothing. Do not inhale vapor. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke while using the product. Change clothing before leaving workplace and wash before reuse.
Hand protection	Suitable protective gloves like nitrile or viton are recommended. The breakthrough time of the selected glove must be greater than the intended use period.
Respiratory protection	An organic respirator NIOSH-approved for organic vapors is recommended where local ventilation is not adequate.
Eye protection	Protective goggles/safety glasses.

SECTION 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	
Form	Viscous liquid
Colour	Clear, slightly yellowish
Odor	Sulphur like
Boilng temperature	Not determined
Flash point	>100°C
Solubility in water	Insoluble
Specific gravity	1.14
Vapour density	Not determined

SECTION 10: Stability and reactivity	
10.1. Stability and reactivity	
	Stable when stored under recommended conditions and no reactive hazards known.
10.2. Conditions to avoid	
	None known.
10.3. Hazardous decomposition products	
	During normal storage, hazardous decomposition will not occur. At higher temperatures, decomposition products depends on the temperature, air supply and presence of other materials. Irritant gas and vapors will be produced.
10.4. Hazardous polymerization	
	Will not occur by itself.
10.5. Incompatible materials	
	Avoid contact with oxidizing materials, acids and bases.

SECTION 11: Toxicological information	
No specific oral, inhalation or dermal toxicology data is known for this product. Any toxicological data included in this section is based on the data associated with the components.	
Oral toxicity	Not classified
Dermal toxicity	Not classified
Inhalation toxicity	Not classified
Eye irritation	Eye irritant, category 2
Dermal irritation	Skin irritant, category 2
Skin sensitization	Skin sinsitiser, category 1
Carcinogenicity	No data available
Reproductive toxicity	No data available

MAG220 (Part B)

SECTION 12: Ecological information

Ecology toxicity	EC_{50}> 100 mg/L
Persistence/degradability	Not readily biodegradable.
Bioaccumulative potential	No data available.
Mobility	No data available.

Individual components of this mixture have been independently tested by the raw material suppliers and any known results have been presented above. The results for the individual components may not be representative of the ecological toxicity of this finished product. This finished product has not been tested to determine individual toxicological/ecological limits. Great caution should be taken to prevent release to the environment. See Section 13 for further information.

SECTION 13: Disposal considerations

Disposal information	Preferred method of disposal includes incineration under controlled conditions in accordance with all local and national laws and regulations. The generation of waste should be avoided or minimized wherever possible. Untreated material is not suitable for disposal. Waste, even in small quantities, should never be poured down into drains, sewers or watercourses. Waste must be disposed of in accordance with federal, state and local environmental control regulations. This material, when properly mixed and cured at the proper mix ratio, may be safely landfilled.

SECTION 14: Transport information

14.1. Road transport (ADR)

	Not regulated

14.2. Marine transport (IMDG)

	Not regulated

14.3. Air transport (IATA)

Proper shipping name	AVIATION REGULATED LIQUID, N.O.S.
Technical name	Polymercaptan
UN number	UN3334
Hazard class	9
Packing group	None

SECTION 15: Regulatory information

15.1. EU Classifications

Xi Irritant

15.2. EU risks(R) phrases

R36/37/38	Irritating to eyes, respiratory and skin.
R43	May cause sensitisation by skin contact.

15.3. EU safety(s) phrases

S7/9	Keep container tightly closed and in a well-ventilated place.
S23	Do not breathe in vapor.
S27	Take off immediately all contaminated clothing.
S28	After contact with skin, wash immediately with plenty of soap with water.
S363/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell seek medical advice immediately.
S51	Use only in well-ventilated areas.

15.4. Inventory status

	All the components are listed in the Europe EINECS (replaced with REACH), United States TSCA, Canada DSL, China IECSC, and Japan ENCS inventories.

MAG220 (Part B)

SECTION 16 Other information

16.1. Definitions

EIENCS	European Inventory of Existing Commercial Chemical Substances.
TSCA	Toxic Substances Control Act.
DSL	Domestic Substance List.
IECSC	Inventory of Existing Chemical Substances in China.
ENCS	Existing & New Chemical Substances.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals.
TLV	Threshold Limit Value.
LD_{50}	The minimum dose required for lethal effects in 50% of a given population of test specimens.
NIOSH	National Institute for Occupational Safety and Health.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The details contained herein are based on our present state of knowledge and experience in characterizing our product with regard to any possible safety requirement.
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