

Australian statement of hazardous nature: Classified as hazardous according to criteria of Safe Work Australia

Section 1 - Identification

Product Name MBOND AE 10 Resin

Product Code VMMMMF006848/VMMMMF015578

Address ThermoFisher Scientific Australia Pty Ltd

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Emergency Tel. CHEMTREC®

03 9757 4559 or +613 9757 4559

Telephone / Fax Numbers Tel: 1300 735 292

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E-mail address ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National

Code of Practice for Chemicals of Security Concern.

Section 2 - Hazard(s) Identification

Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards

No hazards identified

Health hazards

Skin Corrosion/Irritation Category 2 Serious Eye Damage/Eye Irritation Category 2 Skin Sensitization Category 1 Germ Cell Mutagenicity Category 2

Environmental hazards

Chronic aquatic toxicity Category 3

Label Elements

AUS-002673B1 Version 2 14-Jul-2023 Page 1/11





Signal Word

Warning

Hazard Statements

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H341 - Suspected of causing genetic defects if inhaled

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

P201 - Obtain special instructions before use

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

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

P362 + P364 - Take off contaminated clothing and wash it before reuse

P403 - Store in a well-ventilated place

P501 - Dispose of contents/ container to an approved waste disposal plant

Other information

This product does not contain any known or suspected endocrine disruptors

Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
Bisphenol A diglycidyl ether	1675-54-3	>70
Oxirane, 2,2'-4-butylidenebisphenyleneoxymethylene (DGEBA)	25085-99-8	15-25
Resorcinol	108-46-3	<5
Oxirane, [(2-methylphenoxy)methyl]-	2210-79-9	<5

Section 4 - First Aid Measures

Inhalation Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

AUS-002673B1 Version 2 14-Jul-2023 Page 2/11

General Advice If symptoms persist, call a physician.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

First Aid Facilities Eyewash, safety shower and washroom.

Most important symptoms and

effects

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest

pain, muscle pain or flushing

Notes to Physician Treat symptomatically.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6 - Accidental Release Measures

Emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

Environmental Precautions

Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Clean-up methods - small spillage

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Clean-up methods - large spillage

Typically only supplied is small quantiites as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

Section 7 - Handling and Storage

Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

AUS-002673B1 Version 2 14-Jul-2023 Page 3 / 11

Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

Section 8 - Exposure Controls and Personal Protection

Exposure limits

AUS - Exposure Standards for Atmospheric Contaminants in the Occupational Environment - Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:3008(1995)] Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)] updated in August, 2005. Safe Work Australia

ACGIH - Threshold Limit Values - Ceiling (TLV-C) guidelines by the American Conference of Governmental Industrial Hygienists (ACGIH) for controlling worker exposure to airborne chemical concentrations in the workplace.

UK - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020.

DE - MAK and BAT values of Hazardous Chemical Compounds in the Work Area. Published by German Research Foundation on July 1, 2011

NZ - Workplace Exposure Standards and Biological Exposure Indices (6th edition). New Zealand Department of Labor

Component	Australia	New Zealand WEL	ACGIH TLV	The United Kingdom	Germany
Resorcinol	STEL: 20 ppm STEL: 90 mg/m³ TWA: 10 ppm TWA: 45 mg/m³	TWA: 10 ppm TWA: 45 mg/m³ STEL: 20 ppm STEL: 90 mg/m³	TWA: 10 ppm STEL: 20 ppm	STEL: 20 ppm 15 min STEL: 92 mg/m³ 15 min TWA: 10 ppm 8 hr TWA: 46 mg/m³ 8 hr Skin	TWA: 4 ppm (8 Stunden). AGW - exposure factor 1 TWA: 20 mg/m³ (8 Stunden). AGW - exposure factor 1 Haut

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Exposure Controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection

Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial

applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Nitrile rubber	See manufacturers	-	AS/NZS 2161	(minimum requirement)
	recommendations			

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Repiratory ProtectionUse an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

AUS-002673B1 Version 2 14-Jul-2023 Page 4/11

Method - No information available

Liquid

(Air = 1.0)

Liquid

and maintenance of repiratory protective devices

Recommended Filter type: Particulates filter conforming to EN 143 (or AUS/NZ equivalent)

Recommended half mask:-Particle filtering: EN149:2001 (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

Prevent product from entering drains. Do not allow material to contaminate ground water **Environmental exposure controls**

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Clear, amber colored

Physical State Liquid

No information available Odor

Odor Threshold No data available рΗ Not applicable **Melting Point/Range** No data available **Softening Point** No data available **Boiling Point/Range** Not applicable Flash Point Not applicable

Evaporation Rate No data available Flammability (solid,gas) Not applicable

No data available **Explosion Limits**

No data available **Vapor Pressure Vapor Density** No data available

Specific Gravity / Density No data available

Bulk Density Not applicable practically insoluble Water Solubility

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

log Pow Component Resorcinol 0.8 Oxirane, [(2-methylphenoxy)methyl]-2.5

Autoignition Temperature No data available No data available **Decomposition Temperature** No data available **Viscosity Explosive Properties** No information available No information available **Oxidizing Properties**

Other information

Section 10 - Stability and Reactivity

Reactivity None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products, Excess heat.

Incompatible Materials None known.

Hazardous Decomposition Products None under normal use conditions.

Hazardous Polymerization Hazardous polymerization does not occur.

AUS-002673B1 Version 2 14-Jul-2023 Page 5/11 _____

Section 11 - Toxicological Information

Information on Toxicological Effects

Product Information

(a) acute toxicity;

OralBased on available data, the classification criteria are not metDermalBased on available data, the classification criteria are not metInhalationBased on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Bisphenol A diglycidyl ether	LD50 = 11300 μL/kg (Rat)	LD50 = 20000 mg/kg (Rabbit)	
Resorcinol	510 mg/kg (Rat)	2830 mg/kg (Rabbit)	LC50 > 7.8 mg/L (rat) 8 h
Oxirane, [(2-methylphenoxy)methyl]-	LD50 = 4 g/kg (Rat)	LD50 > 2200 mg/kg (Rabbit)	LC50 > 6.1 ppm (Rat) 4 h

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Respiratory No data available Skin Category 1

Sensitization No information available

(e) germ cell mutagenicity; Category 2

(f) carcinogenicity; No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects,both acute and Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling delayed of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Section 12 - Ecological Information

Ecotoxicity effects The product contains following substances which are hazardous for the environment.

Contains a substance which is:. Toxic to aquatic organisms.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Resorcinol	LC50: = 53.4 mg/L, 96h	LC50 = 1.00 mg/L, 48h	EC50 = 97 mg/l (OECD	EC50 = 265 mg/L 30

AUS-002673B1 Version 2 14-Jul-2023 Page 6 / 11

	(Pimephales promelas) LC50: 36 - 100 mg/L, 96h static (Pimephales promelas) LC50: = 100 mg/L, 96h flow-through (Pimephales promelas) LC50: > 100 mg/L, 96h flow-through (Oncorhynchus mykiss)	(Daphnia magna)	TG 201)	min EC50 = 375 mg/L 5 min EC50 = 543 mg/L 48 h
Oxirane, [(2-methylphenoxy)methyl]-	LC50: 2.8 - 5.1 mg/L, 96h static (Oncorhynchus mykiss)			

Persistence and Degradability

Persistence Insoluble in water.

Component	Degradability
Resorcinol	97% (4 days), OECD 302B
108-46-3 (<5)	

Degradation in sewage treatment plant **Bioaccumulative Potential**

Contains substances known to be hazardous to the environment or not degradable in waste

water treatment plants.

May have some potential to bioaccumulate

Component	log Pow	Bioconcentration factor (BCF)
Resorcinol	0.8	2.4 dimensionless
Oxirane, [(2-methylphenoxy)methyl]-	2.5	No data available
Mobility	Spillage unlikely to penetrate soil. Is not likely	mobile in the environment due its low water

solubility

Endocrine Disruptor Information

Component	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Bisphenol A diglycidyl ether	Group II Chemical		
Oxirane,	Group III Chemical		
2,2'-4-butylidenebisphenyleneoxymethylen			
e (DGEBA)			

Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Section 13 - Disposal Considerations

Waste from Residues/Unused **Products**

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

Contaminated Packaging

Dispose of this container to hazardous or special waste collection point.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not let this chemical enter the environment.

Section 14 - Transport Information

IMDG/IMO Not regulated

Not regulated ADG

Component	Hazchem Code
Resorcinol	2Z

AUS-002673B1 Version 2 14-Jul-2023 Page 7/11

108-46-3 (<5)	
100-40-31<51	
100-40-3 (<3)	

IATA Not regulated

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

Section 15 - Regulatory Information

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

National Regulations Australia

See section 8 for national exposure control parameters.

Standard for the Uniform Scheduling of Medicines and Poisons

No poison schedule number allocated.

Component	Standard for the Uniform Scheduling of Medicines and Poisons
Resorcinol - 108-46-3	Schedule 6 listed - except: a) in preparations for human therapeutic use, or b) in oxidative hair dye preparations containing <=1.25% of Resorcinol after mixing for use when the immediate container and primary pack are labelled with the following statements: KEEP OUT OF REACH OF CHILDREN, and WARNING - This product contains ingredients which may cause skin sensitisation to certain individuals. A preliminary test according to the accompanying directions should be made before use. This product must not be used for dyeing eyelashes or eyebrows, to do so may be injurious to the eye. written in letters >=1.5 mm in height, or c) in oxidative eyelash and eyebrow dye preparations containing <=1.25% of Resorcinol after mixing for use when the immediate container and primary pack are labelled with the following statements: KEEP OUT OF REACH OF CHILDREN, and WARNING - This product contains ingredients which may cause skin sensitisation to certain individuals. A preliminary test according to the accompanying directions should be made before use. written in letters >=1.5 mm in height, or d) in hair lotions/shampoo products containing <=0.5% of Resorcinol when the immediate container and primary pack are labelled with the following statement: WARNING - This product contains ingredients which may cause skin sensitisation to certain individuals. written in letters >=1.5 mm in height, or d) in hair lotions/shampoo products containing <=0.5% of Resorcinol when the immediate container and primary pack are labelled with the following statement: WARNING - This product contains ingredients which may cause skin sensitisation to certain individuals. written in letters

Australian Industrial Chemicals Introduction Scheme (AICIS)

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Bisphenol A diglycidyl ether - 1675-54-3	Present	-
Oxirane, 2.2'-4-butylidenebisphenyleneoxymethylen	Present	-
e (DGEBA) - 25085-99-8		
Resorcinol - 108-46-3	Present	-
Oxirane, [(2-methylphenoxy)methyl] 2210-79-9	Present	-

Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemicals of Security Concern

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

AUS-002673B1 Version 2 14-Jul-2023 Page 8 / 11

National pollutant inventory

Not applicable

Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

International Inventories

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	ENCS	ISHL	IECSC	KECL
Bisphenol A diglycidyl ether	Х	Х	216-823-5	-	Х	Х	-	Х	Х	Χ	Х	KE-03162
Oxirane, 2,2'-4-butylidenebisph enyleneoxymethylene (DGEBA)	Х	Х	-	-	Х	Х	-	Х	-		Х	KE-24083
Resorcinol	X	X	203-585-2	-	X	Х	-	Х	Х	Х	Х	KE-02557
Oxirane, [(2-methylphenoxy)met hyl]-	X	Х	218-645-3	-	X	Х	-	X	Х	Х	Х	KE-24799

Legend: X - Listed. '-' - Not Listed. TP - Indicates a substance that is the subject of a proposed TSCA Section 4 test rule. XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B). **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

International Regulations

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their dispoal

Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.

	Component	Basel Convention (Hazardous Waste)	Australian Hazardous Waste Act - Categories of Wastes to Be Controlled
t	Resorcinol - 108-46-3	Annex I - Y39	Y39

Component	CAS No	OECD HPV	Restriction of Hazardous Substances (RoHS)	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Bisphenol A diglycidyl ether	1675-54-3	Listed	Not applicable	Not applicable	Not applicable
Oxirane, 2,2'-4-butylidenebisphenylene oxymethylene (DGEBA)	25085-99-8	Not applicable	Not applicable	Not applicable	Not applicable
Resorcinol	108-46-3	Listed	Not applicable	Not applicable	Not applicable
Oxirane, [(2-methylphenoxy)methyl]-	2210-79-9	Not applicable	Not applicable	Not applicable	Not applicable

Authorisation/Restrictions according to EU REACH

AUS-002673B1 Version 2 14-Jul-2023 Page 9 / 11

	Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
I	Bisphenol A diglycidyl ether	-	Use restricted. See item 75. (see link for restriction details)	-
	Resorcinol	-	Use restricted. See item 75. (see link for restriction details)	-
	Oxirane, [(2-methylphenoxy)methyl]-	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Section 16 - Other Information

Legend

AICS - Australian Inventory of Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic

Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association**

MARPOL - International Convention for the Prevention of Pollution from Ships

NZS 5433:2020 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50% WEL - Workplace Exposure Limit

DNEL - Derived No Effect Level POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

NZIoC - New Zealand Inventory of Chemicals

EINECS/ELINCS - European Inventory of Existing Commercial Chemical

Substances/EU List of Notified Chemical Substances **ENCS** - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

Predicted No Effect Concentration (PNEC)

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road

and Rail **OECD** - Organisation for Economic Co-operation and Development

LC50 - Lethal Concentration 50% ATE - Acute Toxicity Estimate RPE - Respiratory Protective Equipment

NOEC - No Observed Effect Concentration

BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data **Health Hazards** Calculation method Calculation method **Environmental hazards**

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hvaiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Revision Date 14-Jul-2023

Revision Summary Update to GHS format.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

Disclaimer

AUS-002673B1 Version 2 14-Jul-2023 Page 10 / 11 The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet

AUS-002673B1 Version 2 14-Jul-2023 Page 11 / 11