Safety Data Sheet
ULTRABOND P 990 1K
Safety Data Sheet dated: 29/07/2022 - version 4
Date of first edition: 03/05/2017

Section 1: Identification

GHS Product identifier

Mixture identification:

Trade name: ULTRABOND P 990 1K

Trade code: 902444

Recommended use of the chemical and restrictions on use

Recommended use: Polyurethane-based adhesive

Uses advised against: no data available

Supplier's details

Company: MAPEI AUSTRALIA Pty Ltd
180 Viking Drive Wacol QLD 4076 Australia

T. +61 7 32765000 (Mon-Fri 8am to 4.30pm)

F. +61 7 32765076

Responsible: sales@mapei.com.au

Emergency phone number

Australian Poisons Information Centre 24 Hour Service 13 11 26

Police or Fire Brigade 000

Section 2: Hazard(s) identification

Classification of the Hazardous chemical

Serious eye damage, Category 1	Causes serious eye damage.
Respiratory Sensitisation, Category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Adverse physicochemical, human health and environmental effects:

No other hazards

GHS label elements, including precautionary statements

Pictograms and Signal Words

Danger

Hazard statements:

H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/clothing and eye/face protection.
P285	In case of inadequate ventilation wear respiratory protection.
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container in accordance with applicable regulations.

Other hazards which do not result in a classification

Other Hazards: No other hazards

Section 3: Composition and information on ingredients

Substances

no data available

Mixtures

Mixture identification: ULTRABOND P 990 1K

Hazardous components within the meaning of the "Australian Work Health and Safety (WHS)" regulation and related classification:

Concentration (% w/w)	Name	Ident. Numb.	Classification	Registration Number
≥25 - <50 %	Calcium carbonate	CAS:471-34-1 EC:207-439-9		Exempted
≥5 - <10 %	calcium oxide	CAS:1305-78-8 EC:215-138-9	STOT SE 3, H335; Skin Irrit. 2, H315; Eye Dam. 1, H318	01-2119475325-36-XXXX
≥0.49 - <1 %	diphenylmethane-4,4'-diisocyanate	CAS:101-68-8 EC:202-966-0 Index:615-005-00-9	Acute Tox. 4, H332 Eye Irrit. 2A, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT RE 2, H373 Carc. 2, H351 Specific Concentration Limits: C ≥ 5%: Skin Irrit. 2 H315 C ≥ 5%: Eye Irrit. 2A H319 C ≥ 5%: STOT SE 3 H335 C ≥ 0,1%: Resp. Sens. 1 H334	01-2119457014-47-XXXX

Section 4: First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Symptoms caused by exposure

Eye irritation

Eye damages

Medical attention and special treatment

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

(see paragraph 4.1)

Section 5: Firefighting measures

Suitable extinguishing media

None in particular.

Water.

Carbon dioxide (CO_2).

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: no data available

Explosive properties: no data available

Oxidizing properties: no data available

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

Methods and materials for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

Section 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

Section 8: Exposure controls and personal protection

Control parameters – exposure standards, biological monitoring

List of components with OEL value

	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Note
Calcium carbonate CAS: 471-34-1	AUS	AUSTRALIA		10				
	National	FRANCE		10				
	National	PORTUGAL		10				
	National	LATVIA		6				
calcium oxide CAS: 1305-78-8	ACGIH			2				URT irr
	National	SWEDEN		1		2,5		SWEDEN, Short-term value, 15 minutes average value
	National	FINLAND		2				
	National	NORWAY		2				NORWAY, T
	National	NORWAY		2		4		
	OSHA			5				
	ACGIH			2				upper respiratory tract irritation
	AUS	AUSTRALIA		2				
	National	SWEDEN		1				
	National	FRANCE		2				
	National	SPAIN		1		4		
	National	GREECE		1		4		
	National	DENMARK		1				

	National	GERMANY		1				
	National	PORTUGAL		2				
	National	BELGIUM		2				
	National	CZECH REPUBLIC		1				
	National	HUNGARY		1		4		
	National	ESTONIA		1		4		
	National	LATVIA		1		4		
	National	CZECH REPUBLIC	C			4		
	National	SLOVAKIA		5				
	National	SLOVENIA		5		5		
	National	UNITED KINGDOM		1		4		
	National	BULGARIA		1		4		
	National	ROMANIA		1		4		
	National	LITHUANIA		1		4		
	National	CROATIA		1		4		
diphenylmethane-4,4'-diisocyanate CAS: 101-68-8	National	NORWAY		0,050	0,005		0,010	A 4
	National	SWEDEN	C	0,030	0,002	0,050	0,005	SWEDEN, Ceiling limit value
	ACGIH				0,005			Resp sens
	National	POLAND		0,030		0,090		
	National	AUSTRIA		0,050	0,005	0,100	0,010	
	ACGIH				0,005			respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
	AUS	AUSTRALIA		0,020		0,070		
	OSHA		C			0,200	0,020	
	National	SWEDEN		0,030	0,002			
	National	FRANCE		0,100	0,010	0,200	0,020	
	National	SPAIN		0,052	0,005			
	National	DENMARK		0,050	0,005			
	National	GERMANY		0,050				
	National	PORTUGAL			0,005			
	National	BELGIUM		0,052	0,005			
	National	CZECH REPUBLIC		0,050				
	National	HUNGARY		0,05		0,050		
	National	ESTONIA		0,050	0,005	0,100	0,010	
	National	CZECH REPUBLIC	C			0,100		
	National	SLOVAKIA		0,002				
	National	SLOVENIA		0,050		0,050		
	National	ROMANIA				0,150		
	National	LITHUANIA		0,050	0,005			
	National	LITHUANIA	C			0,100	0,010	
	National	NORWAY		0,05	0,005		0,01	

Predicted No Effect Concentration (PNEC) values

	PNEC Limit	Exposure Route	Exposure Frequency	Remark
Calcium carbonate CAS: 471-34-1	100 mg/l	Microorganisms in sewage treatments		

calcium oxide CAS: 1305-78-8	0,49 mg/l	Fresh Water
	0,32 mg/l	Marine water
	3 mg/l	Microorganisms in sewage treatments
	1080 mg/kg	Soil
	816 mg/l	Soil
diphenylmethane-4,4'-diisocyanate CAS: 101-68-8	1 mg/l	Fresh Water
	0,1 mg/l	Marine water
	1 mg/kg	Soil
	1 mg/l	Microorganisms in sewage treatments
	10 mg/l	Intermittent release

Derived No Effect Level. (DNEL)

	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
Calcium carbonate CAS: 471-34-1	6,36 mg/m3		1,06 mg/m3	Human Inhalation	Long Term, local effects	
			6,1 mg/kg	Human Oral	Long Term, systemic effects	
			6,1 mg/kg	Human Oral	Short Term, systemic effects	
calcium oxide CAS: 1305-78-8	4 mg/m3		4 mg/m3	Human Inhalation	Short Term, local effects	
	1 mg/m3		1 mg/m3	Human Inhalation	Long Term, local effects	
diphenylmethane-4,4'-diisocyanate CAS: 101-68-8	50 mg/kg			Human Dermal	Short Term, systemic effects	
	0,1 mg/m3			Human Inhalation	Short Term, systemic effects	
	0,1 mg/m3			Human Inhalation	Short Term, local effects	
	0,05 mg/m3			Human Inhalation	Long Term, systemic effects	
	0,05 mg/m3			Human Inhalation	Long Term, local effects	
			25 mg/kg	Human Dermal	Short Term, systemic effects	
			0,05 mg/m3	Human Inhalation	Short Term, systemic effects	
			20 mg/kg	Human Oral	Short Term, systemic effects	
			0,05 mg/m3	Human Inhalation	Short Term, local effects	
			0,025 mg/m3	Human Inhalation	Long Term, systemic effects	
			0,025 mg/m3	Human Inhalation	Long Term, local effects	
	28,7 mg/cm2		17,2 mg/cm2	Human Dermal	Short Term, local effects	

Appropriate engineering controls

no data available

Individual protection measures, such as personal protective equipment (PPE)

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; AS/NZS 2161.10:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to AS/NZS 1715-1716 for information on selection and use of appropriate respiratory protection equipment.

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Section 9: Physical and chemical properties

Physical state: Liquid

Color: beige or brown

Odour: Characteristic

pH: no data available

Melting point / freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point: 100 °C (212 °F)

Evaporation rate: no data available

Flammability (Solid, Gas): no data available

no data available

Vapour pressure: no data available

Lower and upper explosion limit/flammability limits:

Vapour density: no data available

Relative density: 1.50 g/cm3

Solubility in water: Insoluble

Solubility in oil: partly soluble

Partition coefficient (n-octanol/water): no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Particle size: no data available

Kinematic viscosity: no data available

Particle size distribution: no data available

Particle characteristics:

Shape and aspect ratio: no data available

Specific surface area: no data available

VOC % (Volatile Organic Compound) : 7.91 (Rule 1168) g/l

Section 10: Stability and reactivity

Reactivity

Stable under normal conditions

Chemical stability

no data available

Possibility of hazardous reactions

None.

Conditions to avoid

Stable under normal conditions.

Incompatible materials

None in particular.

Hazardous decomposition products

None.

Section 11: Toxicological information

Information on toxicological effects

Toxicological information of the mixture:

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	The product is classified: Serious eye damage, Category 1(H318)
d) respiratory or skin sensitisation	The product is classified: Respiratory Sensitisation, Category 1(H334)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Calcium carbonate	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LC50 Inhalation Rat > 3 mg/l	
		LD50 Skin Rat > 2000 mg/kg 4h	
		LD50 Oral Rat = 6450 mg/kg	
	g) reproductive toxicity	NOAEL Rat = 1000 mg/kg	
calcium oxide	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LD50 Skin Rat > 2500 mg/kg	
diphenylmethane-4,4'-diisocyanate	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg	
		LD50 Skin Rabbit > 9400 mg/kg	
	b) skin corrosion/irritation	Skin Irritant Skin Rabbit Positive	
	d) respiratory or skin sensitisation	Skin Sensitization Skin Mouse Positive	
		Respiratory Sensitization Inhalation Positive	
	f) carcinogenicity	Carcinogenicity Inhalation Rat = 6, mg/m3	2 y
	g) reproductive toxicity	NOAEL Inhalation Rat = 12, mg/m3	20 d

Section 12: Ecological information

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards

Based on available data, the classification criteria are not met

List of components with eco-toxicological properties

Component	Ident. Numb.	Ecotox Infos
Calcium carbonate	CAS: 471-34-1 - EINECS: 207-439-9	c) Bacteria toxicity : NOEC Bacteria = 1000 mg/L 3

		d) Terrestrial toxicity : LC50 > 1000 mg/kg
		d) Terrestrial toxicity : NOEC = 1000 mg/kg - 28 d
		e) Plant toxicity : NOEC = 1000 mg/kg - 21 d
calcium oxide	CAS: 1305-78-8 - EINECS: 215-138-9	a) Aquatic acute toxicity : LC50 Fish = 457 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia = 49,1 mg/L 48
		b) Aquatic chronic toxicity : NOEC Daphnia = 32 mg/L - 14 d
		a) Aquatic acute toxicity : LC50 Fish = 50,6 mg/L 96
		a) Aquatic acute toxicity : LC50 Daphnia = 158 mg/L 96
		a) Aquatic acute toxicity : EC50 Algae = 184,57 mg/L 72
		b) Aquatic chronic toxicity : NOEC Algae = 48 mg/L 72
		a) Aquatic acute toxicity : LC50 Fish Cyprinus carpio = 1070 mg/L 96h IUCLID
diphenylmethane-4,4'-diisocyanate	CAS: 101-68-8 - EINECS: 202-966-0 - INDEX: 615-005-00-9	a) Aquatic acute toxicity : LC50 Fish > 1000 mg/L 96
		a) Aquatic acute toxicity : EC50 Daphnia > 1000 mg/L 24
		b) Aquatic chronic toxicity : NOEC Daphnia > 10 mg/L - 21 d
		a) Aquatic acute toxicity : EC50 Algae > 1640 mg/L 72
		c) Bacteria toxicity : EC50 > 100 mg/L 3
		d) Terrestrial toxicity : NOEC > 1000 mg/kg - 14 d
		e) Plant toxicity : NOEC > 1000 mg/kg - 14 d

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

Section 13: Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

Section 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

UN number

no data available

UN proper shipping name

no data available

Transport hazard class(es)

no data available

Packing group, if applicable

no data available

Environmental hazards

no data available

Special precautions for user

no data available

Additional Information

no data available

HazChem Code/Emergency Action code

no data available

Section 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

This Safety Data Sheet has been prepared according to the Australian Work Health and Safety (WHS) act and the Code of Practice on preparation of safety data sheets for Hazardous Chemicals.

AICS: all components are listed

Section 16: Any other relevant information

Code	Description
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2A	Eye Irrit. 2A	Eye irritation, Category 2A
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 2. HAZARDS IDENTIFICATION
- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 12. ECOLOGICAL INFORMATION