

Section 1. Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Product Identity** MXBON 31330**Unique Formula Identifier****1.2. Relevant identified uses of the substance or mixture and uses advised against****Intended use** Structural Adhesive.**1.3. Details of the supplier of the safety data sheet****Company Name** Cartell Chemical Co., Ltd.
No. 18 Cheng Gong Street,
Ming Shyong Industrial Park,
Chiayi Hsien, Taiwan
Customer Service: Cartell Chemical Co., Ltd. 886-5-220-3715**1.4. Emergency telephone number****Emergency**
24 hour Emergency Telephone No. 886-5-220-3715**Section 2. Hazard identification of the product****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Acute Tox. 1;H310	Fatal in contact with skin
Skin Corr. 1A;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Resp. Sens. 1;H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3;H335	May cause respiratory irritation.
STOT RE 1;H372	Causes damage to organs through prolonged or repeated exposure.
Aquatic Acute 2;H401	Toxic to aquatic life.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

Contains 4-Methoxyphenol, maleic anhydride. May produce an allergic reaction.

2.2. Label elements

According to REGULATION (EU) 2020/878 amending Regulations EU 2015/830 and (EC) No 1907/2006

**Danger**

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

{H334c} H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Contains 4-Methoxyphenol, maleic anhydride. May produce an allergic reaction.

[Prevention]:

- P233 Keep container tightly closed.
 P261 Avoid breathing dust, fume, gas, mist, vapors, spray.
 P262 Do not get in eyes, on skin, or on clothing.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing, eye protection, face protection.

[Response]:

- P301+310 IF SWALLOWED: Immediately call a POISON CENTER, doctor or physician.
 P302+350 IF ON SKIN: Gently wash with soap and water.
 P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.
 P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305+351+338 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, doctor or physician.
 P321 Specific treatment (see information on this label).
 P333+313 If skin irritation or a rash occurs: Get medical advice or attention.
 P342+311 If experiencing respiratory symptoms: Call a POISON CENTER, doctor or physician.
 P362 Take off contaminated clothing and wash before reuse.
 P363 Wash contaminated clothing before reuse.
 P391 Collect spillage.

[Storage]:

- P403+233 Store in a well ventilated place. Keep container tightly closed.
 P405 Store locked up.

[Disposal]:

- P501 Dispose of contents or container in accordance with local and national regulations.

2.3. Other hazards

- This product contains no PBT/vPvB chemicals.
 This product contains no endocrine disrupting chemicals.

Section 3. Composition/information on ingredients
3.2. Mixtures

If the product contains substances that present a hazard according to Regulation (EC) No. 1272/2008 [CLP/GHS] (as amended by (EU) 2015/830 and REGULATION (EU) 2020/878), they are listed below.

Ingredient/Chemical Designations	Weight %	Classification according to regulation EC No. 1272/2008*	Notes
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo- CAS Number: 5888-33-5	10 - 25	Skin Irrit. 2;H315 Eye Irrit. 2;H319 STOT SE 3;H335 Aquatic Chronic 2;H411	
2-propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene CAS Number: 25053-09-2	10 - 25		
Methacrylic acid CAS Number: 79-41-4	10 - 25	Acute Tox. 4;H312 Acute Tox. 4;H302	Acute M-Factor: 1 Chronic M-Factor: 1 D [^] CLP 3.1

EC No.: 201-204-4 Index No.: 607-088-00-5		Skin Corr. 1A;H314 STOT SE 3;H335 > 1%	
2-propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester CAS Number: 1189-08-8	10 - 25		
Cumene hydroperoxide CAS Number: 80-15-9 EC No.: 201-254-7 Index No.: 617-002-00-8	1 - 5	Org. Perox. E;H242 Acute Tox. 3;H331 Acute Tox. 4;H312 Acute Tox. 4;H302 STOT RE 2;H373 Skin Corr. 1B;H314 C ≥ 10 % Skin Irrit. 2;H315: 3 % ≤ C < 10 % Eye Dam. 1;H318: 3 % ≤ C < 10 % Eye Irrit. 2;H319: 1 % ≤ C < 3 % STOT SE 3;H335: C < 10 % Aquatic Chronic 2;H411	Acute M-Factor: 1 Chronic M-Factor: 1
Benzisothiazol-3(2h)-one, 1,1-dioxide CAS Number: 81-07-2 EC No.: 201-321-0	1 - 5	Not Classified	
maleic anhydride CAS Number: 108-31-6 EC No.: 203-571-6 Index No.: 607-096-00-9	1 - 5	Acute Tox. 4;H302 Skin Corr. 1B;H314 Resp. Sens. 1;H334 Skin Sens. 1A;H317 C ≥ 0.001 % STOT RE 1;H372 Eye Dam. 1;H318	
4-Methoxyphenol CAS Number: 150-76-5 EC No.: 205-769-8 Index No.: 604-044-00-7	0.10 - 1.0	Acute Tox. 4;H302 Eye Irrit. 2;H319 Skin Sens. 1;H317	

^{CLP 31} Reference EC No. 1272/2008 1.1.3.1. Notes relating to the identification, classification and labelling of substances (Table 3.1).

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention.

Give nothing by mouth.

Eye

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview

No specific symptom data available.

Treat symptomatically. See section 2 for further details.

Inhalation	May cause respiratory irritation. May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Eye	Causes serious eye damage.
Skin	Fatal in contact with skin May cause an allergic skin reaction. Causes severe skin burns and eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

Section 5. Fire-fighting measures**5.1. Extinguishing media**

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.

Unsuitable extinguishing media: Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Keep container tightly closed.

Avoid breathing dust, fume, gas, mist, vapors, spray.

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. ----

Section 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Put on appropriate personal protective equipment (see section 8).

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

Section 7. Handling and storage**7.1. Precautions for safe handling**

Handle containers carefully to prevent damage and spillage.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Store between -5C and 40C.

Incompatible materials: No available information

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No available information

Section 8. Exposure controls / personal protection
8.1. Control parameters

CAS No.	Ingredient	Exposure	
		Source	Value
79-41-4	Methacrylic acid	OSHA	No Established Limit
		ACGIH	TWA: 20 ppm
		NIOSH	TWA 20 ppm (70 mg/m ³) [skin]
		National	No Established Limit
80-15-9	Cumene hydroperoxide	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		National	No Established Limit
81-07-2	Benzisothiazol-3(2h)-one, 1,1-dioxide	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		National	No Established Limit
108-31-6	maleic anhydride	OSHA	TWA 1 mg/m ³ (0.25 ppm)
		ACGIH	TWA: 0.1 ppm
		NIOSH	TWA 1 mg/m ³ (0.25 ppm)
		National	No Established Limit
150-76-5	4-Methoxyphenol	OSHA	No Established Limit
		ACGIH	TWA: 5 mg/m ³
		NIOSH	TWA 5 mg/m ³
		National	No Established Limit
1189-08-8	2-propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		National	No Established Limit
5888-33-5	2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		National	No Established Limit
25053-09-2	2-propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		National	No Established Limit

8.2. Exposure controls
Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

Skin

Avoid skin contact. Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Color: colorless to pale yellow	Physical State: Liquid
Odor	No available information	
Odor threshold	No available information	
pH	No available information	
Melting point / freezing point	No available information	
Initial boiling point and boiling range	No available information	
Flash Point	°F °C, Test method: (Open/Close cup)	
Evaporation rate (Ether = 1)	No available information	
Flammability (solid, gas)	No available information	
Upper/lower flammability or explosive limits	Lower Explosive Limit: No available information Upper Explosive Limit: No available information	
Vapor pressure (Pa)	No available information	
Vapor Density	No available information	
Relative Density	No available information	
Solubility in Water	No available information	
Partition coefficient n-octanol/water (Log Kow)	No available information	
Auto-ignition temperature	No available information	
Decomposition temperature	No available information	
Viscosity (cSt)	No available information	
Oxidising properties	No available information	
Explosive properties	No available information	

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Reacts with some bases.

10.4. Conditions to avoid

Avoid high temperatures and contact with incompatible material

10.5. Incompatible materials

No available information

10.6. Hazardous decomposition products

No hazardous decomposition data available.

Section 11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapour LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Methacrylic acid (79-41-4)	1,320.00, Rat - Category: 4	No data available	No data available	No data available	No data available
Cumene hydroperoxide (80-15-9)	382.00, Rat - Category: 4	0.126, Rabbit - Category: 1	No data available	No data available	200.00, Mouse - Category: 2
Benzisothiazol-3(2h)-one, 1,1-dioxide (81-07-2)	17,000.00, Mouse - Category: NA	No data available	No data available	No data available	No data available
maleic anhydride (108-31-6)	No data available	No data available	No data available	No data available	No data available
4-Methoxyphenol (150-76-5)	No data available	> 2,000.00, Rat - Category: NA	No data available	No data available	0 No data available
2-propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester (1189-08-8)	No data available	No data available	No data available	No data available	No data available
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo- (5888-33-5)	5,750.00, Rat - Category: NA	No data available	No data available	No data available	No data available
2-propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene (25053-09-2)	No data available	No data available	No data available	No data available	No data available

Carcinogen Data

CAS No.	Ingredient	Source	Value
79-41-4	Methacrylic acid	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
80-15-9	Cumene hydroperoxide	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
81-07-2	Benzisothiazol-3(2h)-one, 1,1-dioxide	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
		ACGIH	No Established Limit
108-31-6	maleic anhydride	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	A4
150-76-5	4-Methoxyphenol	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No

		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
1189-08-8	2-propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
5888-33-5	2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
25053-09-2	2-propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit
Classification		Category	Hazard Description
Acute toxicity (oral)		---	---
Acute toxicity (dermal)		1	Fatal in contact with skin
Acute toxicity (inhalation)		---	---
Skin corrosion/irritation		1A	Causes severe skin burns and eye damage.
Serious eye damage/irritation		1	Causes serious eye damage.
Respiratory sensitization		1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization		1	May cause an allergic skin reaction.
Germ cell mutagenicity		---	---
Carcinogenicity		---	---
Reproductive toxicity		---	---
STOT-single exposure		3	May cause respiratory irritation.
STOT-repeated exposure		1	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard		---	---

11.2.1 Endocrine disrupting properties

This product contains no endocrine disrupting chemicals.

Section 12. Ecological information

12.1. Toxicity

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Toxic to aquatic life

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L	3hr IC50 Bacteria mg/L	Biodegradability %
Methacrylic acid (79-41-4)	85.00, Oncorhynchus mykiss	210.00, Acartia tonsa	45.00 (72 hr), Pseudokirchneriella subcapitata	---	86.00

Cumene hydroperoxide - (80-15-9)	3.90, Oncorhynchus mykiss	18.84, Daphnia magna	3.10 (72 hr), Scenedesmus subspicatus	> 50.00	Not readily biodegradable
Benzisothiazol-3(2h)-one, 1,1-dioxide (81-07-2)	18,300.00, Pimephales promelas	---	---	---	---
maleic anhydride (108-31-6)	75.00, Lepomis macrochirus	42.81, Daphnia magna	74.35 (72 hr), Pseudokirchneriella subcapitata	---	91.00
4-Methoxyphenol (150-76-5)	28.50, Oncorhynchus mykiss	3.00, Daphnia magna	54.70 (72 hr), Pseudokirchneriella subcapitata	---	Readily biodegradable
2-propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester (1189-08-8)	13.80, QSAR fish	---	0.00 (? hr),	---	---
2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo- (5888-33-5)	0.704, Danio rerio	---	1.98 (72 hr), Pseudokirchneriella subcapitata	---	57.00
2-propenoic acid, 2-methyl-, methyl ester, polymer with 1,3-butadiene and ethenylbenzene - (25053-09-2)	---	---	---	---	---

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

No available information

12.4. Mobility in soil

No available information

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6 Endocrine disrupting properties

This product contains no endocrine disrupting chemicals.

12.7. Other adverse effects

No available information

Section 13. Disposal considerations
13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

ADR/RID
IMO / IMDG (Ocean Transportation)
ICAO/IATA
14.1. UN number

Not Regulated

Not Regulated

Not Regulated

14.2. UN proper shipping name

Not Regulated

Not Regulated

Not Regulated

14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable Sub Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air class: Not Applicable Sub Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: Yes; (2-Propenoic acid, 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl ester, exo-)		
14.6. Special precautions for user	No available information		
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not Applicable		

Section 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Legislation**

REGULATION (EU) 2020/878 amending Regulations EU 2015/830 and (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

National Legislation

None noted.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16. Other information

SDS Revision Date 7/01/2022

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.