

Version : 5.4  
Revision date : 30/05/2017  
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Form No : 0101120041



## SAFETY DATA SHEET

# EMS Dubell® Chemical Anchor F.1511 (B)

according to Regulation (EC) No. 1907/2006(REACH) with its amendment Regulation (EC) No. 2015/830

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

#### 1.1. Product identifier

Product name : EMS Dubell® Chemical Anchor F.1511 (B)  
Contains : Reaction product: bisphenol-A-(epichlorhydrin) and Dibenzoyl peroxide

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Anchoring and bonding of concrete, marble, stone etc.  
F.1511 Chemical Anchor is used via mixing component 'A' with component 'B' by the help of a nozzle.

#### 1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier : **Metsan Endüstriyel Yapıştırıcılar Ticaret Anonim Şirketi**  
Birlik Organize Sanayi Bölgesi Batı Caddesi 1.Sokak No.1  
34953 Tuzla, İstanbul TÜRKİYE  
Telephone: +90 444 06 49  
Fax: +90 212 253 42 12  
Web: [www.metsan.gen.tr](http://www.metsan.gen.tr)  
Responsibility statement : For further information please contact with following e-mail address, [sds@metsan.gen.tr](mailto:sds@metsan.gen.tr)

#### 1.4. Emergency telephone number

Metsan: +90 212 235 52 55 (available from 9:00 to 18:00 GMT+2)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

According to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation : Category 2 (H315)  
Skin sensitisation : Category 1 (H317)  
Eye irritation : Category 2 (H319)  
Aquatic chronic : Category 2 (H411)

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### 2.2. Label elements

According to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictogram(s)

GHS 07



GHS 09



Signal word

Warning

Hazard statement(s)

Physical hazards

: Not classified.

Health hazards

: H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

Environmental hazards

: H411: Toxic to aquatic life with long-lasting effects.

Precautionary statement(s)

Prevention

: P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

: P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

Storage

: P403 + P235: Store in a well-ventilated place. Keep cool.

Disposal

: P501: Dispose of contents/container to an appropriate disposal facility.

### Supplemental information on label

Not applicable.

### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable for this product.

#### 3.2. Mixtures

Name	CAS No. EC No.	REACH Registration No.	wt%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reaction product: bisphenol-A- (epichlorhydrin)	25068-38-6 500-033-5	01-2119456619-26	30.0 - <45.0	Skin Irrit. 2- H315 Skin Sens. 1- H317 Eye Irrit. 2- H319 Aquatic Chr. 2- H411
Dibenzoyl peroxide	94-36-0 202-327-6	05-2115132682-52	10.0 - <20.0	Org. Perox. B- H241 Skin Sens. 1- H317 Eye Irrit. 2- H319

- Up to the given revision date of this safety data sheet only the above mentioned REACH registration numbers are assigned to the chemical substances used in this mixture.

#### Additional information

See full text of H-phrases and classification codes in chapter 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### Inhalation

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

##### Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

##### Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

##### Eye contact

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Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

### Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

Please see practical experience in Section 11.

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

No information available.

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## SECTION 5: Firefighting measures

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### 5.1. Extinguishing media

#### Suitable extinguishing media

Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

#### Unsuitable extinguishing media

Do not use high power water jet.

### 5.2. Special hazards arising from the substance or mixture

#### Hazardous combustion products

Closed containers exposed to heat from fire may build pressure and explode. Exposure to extreme heat can give rise to thermal decomposition.

#### Hazardous decomposition or by-products

Carbon dioxide

Carbon monoxide

Sulfur oxides

Nitrogen oxide

### 5.3. Advice for firefighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. When firefighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, tunic and trousers

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(leggings), bands (around arms, waist and legs), face mask, and protective covering for exposed areas of the head.

### Special protective equipment and firefighting procedures

There is no specific recommended protective equipment other than suggested above.

### Additional information

In case of fire, keep containers(cartridges) cool with water spray.

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## SECTION 6: Accidental release measures

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### 6.1. Personal precautions, protective equipment and emergency procedures

Refer to Section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Avoid breathing vapor or mist. Provide proper ventilation of working area.

### 6.2. Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems. Please avoid any emission of volatile organic compounds as possible.

### 6.3. Methods and materials for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (density: 0,880) ammonia solution (5 parts). After usage of suitable decontaminant, transfer the material to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

For appropriate self-protection equipment, please apply the suggested protection procedures given in Section 8.

For disposal of waste, please see advices in Section 13.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Safe handling advice

Avoid inhalation of thermal decomposition products. For industrial or professional use only. Workers should wash hands and face before eating, drinking and smoking. Store work clothes separately from other clothing, food and tobacco products. Do not handle until all safety precautions have been read and understood. Wash contaminated clothing before reuse. Avoid breathing vapors. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for additional information on exposure controls and personal protection.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage areas and containers

Store in original containers at 10-25°C (50-77°F) and do not leave top of the cartridge open as contamination from air or other environment may reduce the shelf life of the product.

#### Advice on common storage

Store separately from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Do not store together with explosives, gases, oxidizing solids, products which form flammable gases in contact with water, oxidizing products, infectious products and radioactive products.

#### Additional information on storage conditions

Protect against UV and sunlight. Keep away from heat sources and humid media.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Community / national occupational exposure limit values

	Dibenzoyl peroxide (CAS No: 94-36-0)		Limit value – Short term	
	Limit value – Eight hours		ppm	mg/m <sup>3</sup>
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Australia	-	5	-	-
Austria	-	5	-	10
Belgium	-	5	-	-

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Canada	-	5	-	-
Denmark	-	5	-	10
Finland	-	5	-	10
France	-	5	-	-
Germany - AGS	-	5	-	5
Germany - DFG	-	5	-	5
Hungary	-	5	-	5
Ireland	-	5	-	-
New Zealand	-	5	-	-
People's Republic of China	-	5	-	-
Singapore	-	5	-	-
South Korea	-	5	-	-
Switzerland	-	5	-	5
United Kingdom	-	5	-	-
USA - NIOSH	-	5	-	-
USA - OSHA	-	5	-	-

- OEL values that are given in this subsection are taken from GESTIS International Limit Values database.
- If a component is disclosed in Section 3 but does not appear in the table given above, an occupational exposure limit value is not available for the corresponding component.

### Information on monitoring procedures

#### DN(M)ELs

CAS No.	Chemical name	End use	Exposure routes	Frequency of exposure	Type	Value
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Workers	Inhalation	Acute	Systemic	12.25 mg/m <sup>3</sup>
		Workers	Inhalation	Chronic	Systemic	12.25 mg/m <sup>3</sup>
		Workers	Dermal	Acute	Local	No hazard identified.
		Workers	Dermal	Acute	Systemic	8,33 mg/kg bw/day
		Workers	Dermal	Chronic	Local	No hazard identified.
		Workers	Dermal	Chronic	Systemic	8,33 mg/kg bw/day
		Consumers	Oral	Acute	Systemic	0,75 mg/kg bw/day
		Consumers	Oral	Chronic	Systemic	0,75 mg/kg bw/day
		Consumers	Dermal	Acute	Local	No hazard identified.

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		Consumers	Dermal	Acute	Systemic	3,571 mg/kg bw/day
		Consumers	Dermal	Chronic	Local	No hazard identified.
		Consumers	Dermal	Chronic	Systemic	3,571 mg/kg bw/day
94-36-0	Dibenzoyl peroxide	Workers	Inhalation	Acute	Systemic	No hazard identified.
		Workers	Inhalation	Chronic	Systemic	39 mg/m <sup>3</sup>
		Workers	Dermal	Acute	Local	High hazard (no threshold derived)
		Workers	Dermal	Chronic	Local	34 µg/cm <sup>2</sup>
		Workers	Dermal	Chronic	Systemic	13,3 mg/kg bw/day
		Workers	Eyes	Acute	Local	Medium hazard (no threshold derived)
		Workers	Eyes	Chronic	Local	Medium hazard (no threshold derived)
		Consumers	Oral	Chronic	Systemic	2 mg/kg bw/day

- If a component is disclosed in Section 3 but does not appear in the table given above, a DN(M)EL is not available for the corresponding component.

### PNECs

CAS No.	Chemical name	Environmental protection target	Value	Extrapolation method
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Freshwater	0.006 mg/L	Assessment factor: 50
		Marine water	0.001 mg/L	Assessment factor: 500
		Intermittent releases	0.018 mg/L	Assessment factor: 100
		STP	10 mg/L	Assessment factor: 10
		Sediment (freshwater)	0.996 mg/kg sediment dw	Partition coefficient
		Sediment (marine water)	0.1 mg/kg sediment dw	Partition coefficient
		Soil	0.196 mg/kg soil dw	Partition coefficient
		Predators - oral	11 mg/kg food	Assessment factor: 90
94-36-0	Dibenzoyl peroxide	Freshwater	0.02 µg/L	Assessment factor: 50
		Marine water	0.002 µg/L	Assessment factor: 500
		Intermittent releases	0.602 µg/L	Assessment factor: 100
		STP	0.35 mg/L	Assessment factor: 100
		Sediment (freshwater)	0.013 mg/kg sediment dw	Partition coefficient



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		Sediment (marine water)	0.001 mg/kg sediment dw	Partition coefficient
		Air	No hazard identified	
		Soil	0.003 mg/kg soil dw	Partition coefficient
		Predators	No potential to cause toxic effects if accumulated (in higher organisms) via the food chain	

- If a component is disclosed in Section 3 but does not appear in the table given above, a PNEC is not available for the corresponding component.

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protection

Personal protection equipment :



Eye protection : Safety glasses with side shields or chemical safety goggles should be worn if there is a risk of splashing of material. Safety protection equipment must be conform to EN 166 / EN 170 standards.

Skin protection : Hand and other skin protection  
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate

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compatible gloves/protective clothing. Gloves made from the following material(s) are recommended:

- Butyl rubber at least 0.5 mm thickness
- Fluoroelastomer at least 0.4 mm thickness

Respiratory protection : In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Usage of 'Filter AX' is recommended in case of short term use.

### Environmental exposure controls

Do not let product enter drains. For ecological information refer to Section 12. Also, check for Environmental Precautions in Section 6.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance : Paste  
Color : Black  
Odor : Characteristic  
Odor threshold : No data available.

<u>Property</u>	<u>Values</u>	<u>Method(s) and remark(s)</u>
pH	Not applicable.	
Melting point/freezing point	Not applicable.	
Initial boiling point and boiling range	>149°C	
Flash point	>100°C	
Evaporation rate	Negligible.	
Flammability (solid, gas)	Not applicable.	
Flammability limit in air		
Upper flammability limit	Not applicable.	
Lower flammability limit	Not applicable.	
Vapor pressure	No data available.	
Vapor density	No data available.	
Relative density	1.48 – 1.52	at 24°C (Ref. water at 24°C)

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### Solubility(ies)

In water	Not miscible.	at 25°C
In other solvent(s)	No data available.	
Partition coefficient: n-octanol/water	No data available.	
Auto-ignition temperature	Not applicable.	
Decomposition temperature	No data available.	
Viscosity	No data available.	
Explosive properties	Not classified.	
Oxidising properties	Not classified.	

### 9.2. Other data

<u>Property</u>	<u>Values</u>	<u>Method(s) and remark(s)</u>
Softening temperature	No data available.	
VOCs content	No data available.	
Density	1.48 – 1.52 g/cm <sup>3</sup>	at 24°C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Keep away from oxidising agents and strongly acid or alkaline materials. Mixture can rapidly react with these materials and produce CO<sub>2</sub>. Evolution of CO<sub>2</sub> in closed containers causes overpressure and produces a risk of bursting.

### 10.2. Chemical stability

The product is chemically stable under normal storage conditions.

### 10.3. Possibility of hazardous reactions

There is no known hazardous reactions under normal storage conditions.

### 10.4. Conditions to avoid

Stable under recommended storage and handling conditions (see Section 7). Avoid any contact with heat sources.

### 10.5. Incompatible materials to avoid

Refer to reactivity in this section.

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### 10.6. Hazardous decomposition products

Refer to Section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### General observations

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Due to the absence of specific data on the mixture regarding interactions between component substances, relevant health effects of each substance are listed. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### Practical experience

No information available

#### Acute toxicity

CAS No.	Chemical name	Species	Type	Exposure duration	Value	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	Rat	LD50 Oral	Single treatment	>2000 mg/kg bw	OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method) – 14 day observation period
		Rat	LC0 Inhalation	5 h	0.000008 ppm	-
		Rat	LD50 Dermal	24 h	>2000 mg/kg bw	OECD Guideline 402 (Acute Dermal Toxicity) – 14 day observation period
94-36-0	Dibenzoyl peroxide	Mouse	LD0 Oral	Single treatment	>2000 mg/kg bw	OECD Guideline 401 (Acute Oral Toxicity)
		Rat	LC0 Inhalation	4 h	24.3 mg/L air	OECD Guideline 403 (Acute Inhalation Toxicity)
		Mouse	LD50 Intraperitoneal	-	168 mg/kg bw	-

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### Skin corrosion/irritation

CAS No.	Chemical name	Species	Exposure duration	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Rabbit	4 h	Slightly irritating	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
94-36-0	Dibenzoyl peroxide	Rabbit	4 h	Not irritating	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

### Serious eye damage/irritation

CAS No.	Chemical name	Species	Exposure duration	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Rabbit	Single treatment	Not irritating	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
94-36-0	Dibenzoyl peroxide	Rabbit	Single treatment	Slightly irritating	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

### Respiratory or skin sensitisation

CAS No.	Chemical name	Species	Exposure duration	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Mouse	-	Sensitising	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
		Guinea pig	-	Sensitising	OECD Guideline 406 (Skin Sensitisation)
94-36-0	Dibenzoyl peroxide	Mouse	-	Sensitising	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
		Guinea pig	-	Sensitising	OECD Guideline 406 (Skin Sensitisation)

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### Germ cell mutagenicity

CAS No.	Chemical name	Species	Type	Route	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-epichlorhydrin	S.typhimurium TA 1535, TA 1537, TA 98 and TA 100	Gene mutation	In vitro	Mutagenic.	-
		S.typhimurium TA 1535, TA 1537, TA 98 and TA 100	Gene mutation	In vitro	Not mutagenic.	OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
		Mouse lymphoma L5178Y cells	Intraperitoneal	In vitro	Mutagenic.	-
		Chinese hamster	Chromosome aberration	In vivo	Not mutagenic	-
94-36-0	Dibenzoyl peroxide	Mouse lymphoma L5178Y cells	Gene mutation	In vitro	Not mutagenic	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
		S.typhimurium TA 1535, TA 1537, TA 98 and TA 100	Gene mutation	In vitro	Not mutagenic	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
		Mouse	Intraperitoneal	In vivo	Not mutagenic	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

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### Carcinogenicity

CAS No.	Chemical name	Species	Type	Exposure duration	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	Rat	Dermal	Up to 2 years	No evidence of carcinogenicity.	OECD Guideline 451 (Carcinogenicity Studies)
		Mouse	Dermal	Up to 2 years	No evidence of carcinogenicity.	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
		Rat	Oral: gavage	Up to 1 year	No evidence of carcinogenicity	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
94-36-0	Dibenzoyl peroxide	Rat	Dermal	At least 104 weeks	No evidence of carcinogenicity.	OECD Guideline 451 (Carcinogenicity Studies)
		Rat	Subcutaneous	12 weeks	No evidence of carcinogenicity.	-

### Reproductive toxicity

CAS No.	Chemical name	Species	Type	Exposure duration	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	Rat	Oral: gavage	238 days	NOEL 540 mg/kg bw/day	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
94-36-0	Dibenzoyl peroxide	Rat	Oral: gavage	51 days	NOAEL 500 mg/kg bw/day	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

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### STOT – Single exposure

No information available.

### STOT – Repeated exposure

No information available.

### Aspiration hazard

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

No test data available for the product.

#### Acute (short-term) toxicity

CAS No.	Chemical name	Species	Exposure duration	Test endpoint	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	Oncorhynchus mykiss (fish)	96 h	LC50	3.6 mg/L	OECD Guideline 203 (Fish, Acute Toxicity Test)
		Daphnia magna (invertebrates)	24 h	LC0	1.7 mg/L	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
			24 h	EC50	3.6 mg/L	
94-36-0	Dibenzoyl peroxide	Oncorhynchus mykiss (fish)	96 h	LC50	0.06 mg/L	OECD Guideline 203 (Fish, Acute Toxicity Test)
		Oncorhynchus mykiss (fish)	96 h	NOEC	0.032 mg/L	OECD Guideline 203 (Fish, Acute Toxicity Test)
		Daphnia magna (invertebrates)	48 h	EC50	0.11 mg/L	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)



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		Daphnia magna (invertebrates)	48 h	NOEC	0.076 mg/L	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
		Daphnia magna (invertebrates)	24 h	EL50	>1000 mg/L	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

### Chronic (long-term) toxicity

CAS No.	Chemical name	Species	Exposure duration	Test endpoint	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Daphnia magna (invertebrates)	21 days	NOEC	0.3 mg/L	OECD Guideline 211 (Daphnia magna Reproduction Test)
		Daphnia magna (invertebrates)	21 days	LOEC	1 mg/L	OECD Guideline 211 (Daphnia magna Reproduction Test)
94-36-0	Dibenzoyl peroxide	Daphnia magna (invertebrates)	21 days	EC10	0.001 mg/L	OECD Guideline 211 (Daphnia magna Reproduction Test)

### Toxicity to aquatic algae and cyanobacteria

CAS No.	Chemical name	Species	Exposure duration	Test endpoint	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin)	Pseudokirchnerella subcapitata	72 h	EC50	>100 mg/L	OECD Guideline 201 (Alga, Growth Inhibition Test)

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94-36-0	Dibenzoyl peroxide	Pseudokirchnerella subcapitata	72 h	EC50	0.071 mg/L	OECD Guideline 201 (Alga, Growth Inhibition Test)
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### 12.2. Persistence and degradability

The product can be biodegradable as its ingredients are all classified as biodegradable.

CAS No.	Chemical name	Test type	Study type	Duration	Degradation %	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	Ready biodegradability	CO <sub>2</sub> evolution	28 days	6%	OECD Guideline 301 B (Ready Biodegradability: CO <sub>2</sub> Evolution Test) – Not biodegradable
94-36-0	Dibenzoyl peroxide	Ready biodegradability	O <sub>2</sub> consumption	7 days	58%	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test) – Biodegradable
				14 days	63%	
				21 days	71%	
				21 days	71%	

### 12.3. Bioaccumulative potential

CAS No.	Chemical name	Log K <sub>ow</sub>	BCF	Result	Method(s) and/or reference(s) and/or note(s)
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin	1.04	3	No bioaccumulation potential.	-

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

Based on available data no ingredient is classified for this hazard property (please see section 3).

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### 12.6. Other adverse effects

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 3 for details.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Dispose of in accordance with local regulations.

- Product disposal : Contribution of this product to waste is very insignificant in comparison to article in which it is used.
- Packaging disposal : After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorized legal land fill site or incinerated.

### Waste disposal number of waste (acc. to European Waste Catalogue)

- 08 04 09 : WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances Classified as hazardous waste.
- 20 01 27 : MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; Paint, inks, adhesives and resins containing dangerous substances
- 16 09 03 : WASTES NOT OTHERWISE SPECIFIED IN THE LIST; Peroxides, for example hydrogen peroxide

## SECTION 14: Transport information

### 14.1. UN number

- UN No.(ADR) : 3077 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)
- UN No.(ADN) : 3077 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)

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UN No.(RID) : 3077 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
UN No.(IMDG) : 3077 (No dangerous goods in packaging until 5kg according 2.10.2.7 IMDG Code)  
UN No.(IATA) : 3077 (No dangerous goods in single or inner packaging until 5kg according Special Provision A197 IATA DGR)

### 14.2. UN proper shipping name

Proper shipping name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE)  
Proper shipping name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE)  
Proper shipping name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE)  
Proper shipping name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE)  
Proper shipping name (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE)  
  
Transport document wording (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE), 9, III, (E)  
Transport document wording (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE), 9, III  
Transport document wording (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE), 9, III  
Transport document wording (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE), 9, III  
Transport document wording (IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains EPOXY RESIN and DIBENZOIL PEROXIDE), 9, III

### 14.3. Transport hazard class(es)

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Class(es) (ADR) : 9 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Class(es) (ADN) : 9 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Class(es) (RID) : 9 (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Class(es) (IMDG) : 9 (No dangerous goods in packaging until 5kg according 2.10.2.7 IMDG Code)  
Class(es) (IATA) : 9 (No dangerous goods in single or inner packaging until 5kg according Special Provision A197 IATA DGR)  
Transport label (ADR / ADN / RID / IMDG / IATA)



### 14.4. Packaging group

Packing group (ADR) : III (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Packing group (ADN) : III (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Packing group (RID) : III (No dangerous goods in single or inner packaging until 5kg according Special Provision 375)  
Packing group (IMDG) : III (No dangerous goods in packaging until 5kg according 2.10.2.7 IMDG Code)  
Packing group (IATA) : III (No dangerous goods in single or inner packaging until 5kg according Special Provision A197 IATA DGR)

### 14.5. Environmental hazards

Marine pollutant : Yes  
Dangerous for the environment : Yes  
Special labelling (ADR and IATA) :



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### 14.6. Special precautions for user

Transport the package in a proper way that cap of the package is at the top. Make sure that person who is transporting has enough information about instructions applied in case of an accident or any relevant hazard incident.

#### ADR additional informations

No dangerous goods in single or inner packaging until 5kg according Special Provision 375

Classification code : M7  
Hazard identification no : 90  
Transport category : 3  
Tunnel restriction code : (E)

#### ADN additional informations

No dangerous goods in single or inner packaging until 5kg according Special Provision 375

Classification code : M7  
Hazards : 9+N2+F  
Equipment required : PP

#### RID additional informations

No dangerous goods in single or inner packaging until 5kg according Special Provision 375

Classification code : M7  
Hazard identification no : 90  
Transport category : 3  
Colis express : CE8

#### IMDG additional informations

No dangerous goods in packaging until 5kg according 2.10.2.7 IMDG Code

EmS : F-A, S-F  
Stowage category : A

#### IATA additional informations

No dangerous goods in single or inner packaging until 5kg according Special Provision A197 IATA  
DGR

Excepted quantity code : E1

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Passenger and Cargo Aircraft : Y956  
Limited Quantity - Packing  
Instructions  
Passenger and Cargo Aircraft : 30 kg G  
Limited Quantity - Maximum Net  
Quantity per Package  
Passenger and Cargo Aircraft - : 956  
Packing Instructions  
Passenger and Cargo Aircraft - : 400 kg  
Maximum Net Quantity per  
Package  
Cargo Aircraft Only - Packing : 956  
Instructions  
Cargo Aircraft Only - Maximum : 400 kg  
Net Quantity per Package  
ERG code : 9L

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

## SECTION 15: Regulatory information

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

#### Australia (AICS)

All ingredients are on the inventory or exempt from listing.

#### Canada (DSL)

All ingredients are on the inventory or exempt from listing.

#### Canada (NDSL)

None of the ingredients are on the inventory of NDSL.

#### China (IECSC)

All ingredients are on the inventory or exempt from listing.

#### European Union (EINECS)

All ingredients are on the inventory or exempt from listing.

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### European Union (ELINCS)

None of the ingredients are on the inventory of ELINCS.

### Japan (ENCS)

All ingredients are on the inventory or exempt from listing.

### Philippines (PICCS)

All ingredients are on the inventory or exempt from listing.

### South Korea (KECI)

All ingredients are on the inventory or exempt from listing.

### Taiwan (TCSI)

All ingredients are on the inventory or exempt from listing.

### United States of America (TSCA)

All ingredients are on the inventory or exempt from listing.

## 15.2. Chemical Safety Assessment

No safety checks were carried out on the mixture.

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## SECTION 16: Other information

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### Information taken from reference works and the literature

This SDS is prepared via using latest available SDS of ingredients that are provided from the manufacturers. Also, to confirm the validity of data and to give all necessary information, several databases are used. This references are listed below.

Substance number : CAS No. – <https://scifinder.cas.org>  
OEL values : GESTIS – <http://limitvalue.ifa.dguv.de/>  
DN(M)EL and PNEC values : ECHA – <http://echa.europa.eu/information-on-chemicals>  
Inventories given in Section 15 : AICS – <http://nicnas.gov.au/search>  
DSL & NDSL – [http://ec.gc.ca/lcpe-cepa/eng/substance/chemicals\\_polymers.cfm](http://ec.gc.ca/lcpe-cepa/eng/substance/chemicals_polymers.cfm)  
IECSC – <http://cciss.cirs-group.com/>



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EINECS & ELINCS– <http://echa.europa.eu/information-on-chemicals/ec-inventory>

ENCS – <http://safe.nite.go.jp/english/db.html>

KECI – <http://ncis.nier.go.kr/totinfo/TotInfoList.jsp>

PICCS –

<http://119.92.161.5/internal/public/searchprojects.aspx>

TCSI - <http://csnn.osha.gov.tw/content/home/index.aspx>

TSCA - <http://www.epa.gov/tsca-inventory>

### Abbreviations and acronyms

ADN	:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	:	The German Committee on Hazardous Substances
AICS	:	Australian Inventory of Chemical Substances
ATE	:	Acute Toxicity Estimate
BCF	:	Bioconcentration factor
BOD	:	Biological Oxygen Demand
CAS	:	Chemical Abstracts Service
CLP	:	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DFG	:	German Research Foundation
DN(M)EL	:	Derived No (Minimal) Effect Level
DOT	:	Department of Transportation (USA)
DSD	:	Dangerous Substances Directive 67/548/EEC
DSL	:	Domestic Substances List
EC	:	European Community
EC0	:	Effective Concentration that Produces a Stimulation Index of 0
EC3	:	Effective Concentration that Produces a Stimulation Index of 3
EC50	:	Half Maximal Effective Concentration
EINECS	:	European Inventory of Existing Commercial Substances

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ELINCS	: European List of notified Chemical Substances
EN	: European Standard
ENCS	: Japanese Existing and New Chemical Substances Inventory
GHS	: Globally Harmonized System
IATA	: International Air Transport Association
ICAO-TI	: Technical Instructions for the Safe Transport of Dangerous Goods by Air
IECSC	: Inventory of Existing Chemical Substances in China
IMDG	: International Maritime Dangerous Goods
KECI	: Korea Existing Chemicals Inventory
LC50	: Lethal Concentration to 50 % of a test population
LD50	: Lethal Dose to 50% of a test population (Median Lethal Dose)
LOEC	: Lowest Observable Effect Concentration
Log K <sub>ow</sub>	: Log10 of octanol-water partition coefficient
NDSL	: Non-Domestic Substances List
NIOSH	: The National Institute for Occupational Safety and Health
NOEC	: No Observed Effect Concentration
OECD	: Organization for Economic Co-operation and Development
OEL	: Occupational Exposure Limit
OSHA	: Occupational Safety & Health Administration
OSHA	: European Agency for Safety and Health at work
PBT	: Persistent, Bioaccumulative and Toxic substance
PICCS	: Philippine Inventory of Chemicals and Chemical Substances
PNEC	: Predicted No Effect Concentration
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	: Safety data sheet
STOT	: Specific Target Organ Toxicity
TCSI	: Taiwan Chemical Substance Inventory
TOC	: Total Organic Carbon
TSCA	: Toxic Substances Control Act

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VOC : Volatile Organic Compound  
vPvB : Very Persistent and Very Bioaccumulative

### Full text of classification codes

Aquatic Chr. 2 : Aquatic chronic – Category 2  
Eye Irrit. 2 : Eye damage/eye irritation – Category 2  
Org. Perox. B : Organic peroxide – Type B  
Skin Irrit. 2 : Skin corrosion/irritation – Category 2  
Skin Sens. 1 : Skin sensitization – Category 1

### Full text of H phrases with no. appearing in Section 3

H241 : Heating may cause a fire or explosion.  
H315 : Causes skin irritation.  
H317 : May cause an allergic skin reaction.  
H319 : Causes serious eye irritation.  
H411 : Toxic to aquatic life with long-lasting effects.

### Revision changes

Version 5.4 – Transportation information under Section 14 is revised.  
Version 5.3 – Classifications given under Section 2 are revised.  
Version 5.2 – Section 2, Section 3, Section 9 and Section 14 are revised.  
Version 5.1 – Precautionary statements listed under “Label elements” in Section 2 are revised.  
Version 5.0 – All sections and data are modified to comply with Regulation (EC) No. 1907/2006(REACH) with its amendment Regulation (EC) No. 2015/830.

### Composer of Safety Data Sheet

Şeyma ÇABUK / Metsan R&D Department  
sds@metsan.gen.tr, +90 212 235 52 55  
Certification program/company: TSE  
Certificate number: GBF-A-0-2398

### Additional information

EMS Dubell® is a registered trademark of Metsan Endüstriyel Yapıştırıcılar Ticaret A.Ş.

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### Disclaimer

This company shall not be held liable for any damage resulting from handling or from contact with the above product. The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed on how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.