

## Material Safety Data Sheet

SDS date: 24-10-2019

SDS version: 1.1

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

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#### 1.1. Product Identifier

Trade Name: DMS E-D80 A-component

Product- no.: 619-040050 (part of kit 619-s0400125)

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

Recommended uses: The product is part of a 2-component system. Conformity with safety data sheet for both components when mixing with other component.

Uses advised against: This product must not be used for purposes other than those recommended without first seeking the advice of the supplier.

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

##### Company and address

**Supplier:**

DMS A/S

T: +45 7023 4343

F: +45 7023 4342

dms@dms-as.com

www.dms-as.com

**Manufacturer:**

Promal A/S

Joachim Wellers Vej 27

7500 Holstebro

Tlf: +45 96 10 50 80

www.promal.dk

**Contact person and E-mail:**

Erling Kristensen, [ejk@promal.dk](mailto:ejk@promal.dk)

**The Safety data sheet is completed and validated by:**

mediator A/S, Centervej 2, DK-6000 Kolding. Consultant: HG

#### 1.4. Emergency telephone number

NHS: 111

Use your national or local emergency number - See section 4 "First aid measures".

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## SECTION 2: Hazards identification

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### 2.1. Classification of the substance or mixture

CLP (1272/2008): Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411, EUH205.

See full text of H-phrases in section 16.

### 2.2. Label elements



#### Signal word:

Warning

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

Toxic to aquatic life with long lasting effects. (H411)

Contains epoxy constituents. May produce an allergic reaction. (EUH205)

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

Wear protective gloves/eye protection/face protection. (P280)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. (P305+P351+P338)

If skin irritation occurs: Get medical advice/attention. P332+P313)

Dispose of contents/container in accordance with local regulation. (P501)

### 2.3. Other hazards

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#### Additional labelling:

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#### Additional warnings:

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## SECTION 3: Composition/information on ingredients

### 3.1./3.2. Substances/Mixtures

Substance	EU-Index no.	Cas / EINECS no.	CLP-classification	w/w%	Note
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	603-074-00-8	25068-38-6/ 500-033-5	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411	25-35	1
Epoxy Resin	-	28064-14-4/ -	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Aquatic Chronic 2;H411	2-7	1
1,4-bis(2,3-epoxypropoxy) butane	603-072-00-7	2425-79-8/ 219-371-7	Acute Tox. 4;H312, H332, Skin Irrit. 2;H315, Skin Sens. 1; H317, Eye Irrit. 2; H319	<5	1

1= The substance is an epoxy resin.

See full text of H-phrases in section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation:	Seek fresh air. Keep victim under observation. Seek medical advice in case of discomfort.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of discomfort.
Skin contact:	Immediately remove contaminated clothing. Wash skin with soap and water. Seek medical advice.
Eye contact:	Flush immediately with water (preferably using eye wash equipment) for at least 5 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.
Additional information:	When obtaining medical advice, show the safety data sheet or label. Symptoms: See section 11.

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

**Sensitivity effects:** This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

**Irritation effects:** This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

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

When obtaining medical advice, show the safety data sheet or label.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Extinguish with powder, foam or carbon dioxide. Do not use water stream, as it may spread the fire.

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

Avoid inhalation of vapour and fumes – seek fresh air. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

### 5.3. Advice for firefighters

Fire fighters should wear appropriate protective equipment. If there is a risk of exposure to vapour and flue gases, a self-contained breathing apparatus must be worn. Send contaminated extinguishing water for destruction.

## SECTION 6: Accidental release measures

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

See section 8 for type of protective equipment. Avoid contact with skin and eyes.

### 6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water - See section 12. Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

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

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. See section 13 for instructions on disposal.

### 6.4. Reference to other sections

See above.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

See section 8 for information about precautions for use and personal protective equipment. Use the product under well-ventilated conditions. Running water and eye wash equipment should be available.

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

The product should be stored safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Keep in tightly closed original packaging. Store in a dry, cool, well-ventilated area.

### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Occupational exposure limits according to EH40/2005 Workplace exposure limits (Third edition, 2018):

Substance	Long-term exposure limit	Short-term exposure limit	Note
Bisphenol A inhalable dust	2 mg/m <sup>3</sup>	-	-

**DNEL and PNEC values:**

DNEL - 1,4-bis(2,3-epoxypropoxy)Butane:

**Workers**

Inhalation - Chronic Systemic 4.7 mg/m<sup>3</sup>  
 Dermal - Chronic Systemic 6.66 mg/kg bw/day

**Consumers**

Inhalation - Chronic Systemic 1.16 mg/m<sup>3</sup>  
 Dermal - Chronic Systemic 3.33 mg/kg bw/day  
 Oral - Chronic Systemic 0.33 mg/kg bw/day

DNEL - Benzyl alcohol:

**Workers**

Inhalation - Chronic Systemic 22 mg/m<sup>3</sup>  
 Inhalation - Acute Systemic 110 mg/m<sup>3</sup>  
 Dermal - Chronic Systemic 8 mg/kg bw/day  
 Dermal - Acute Systemic 40 mg/kg bw/day

**Consumers**

Inhalation - Chronic Systemic 5.4 mg/m<sup>3</sup>  
 Inhalation - Acute Systemic 27 mg/m<sup>3</sup>  
 Dermal - Chronic Systemic 4 mg/kg bw/day  
 Dermal - Acute Systemic 20 mg/kg bw/day  
 Oral - Chronic Systemic 4 mg/kg bw/day  
 Oral - Acute Systemic 20 mg/kg bw/day

PNEC - 1,4-bis(2,3-epoxypropoxy)Butane:

Fresh water 0.024 mg/L  
 Intermittent releases (Fresh water) 0.24 mg/L  
 Marine water 0.002 mg/L  
 Soil 0.003 mg/kg soil dw

PNEC - Benzyl alcohol:

Fresh water 1 mg/L  
 Intermittent releases (Fresh water) 2.3 mg/L  
 Marine water 0.1 mg/L  
 Soil 0.456 mg/kg soil dw

**8.2. Exposure controls**

There are no exposure scenarios for this product.

**Appropriate engineering controls:**

Wash hands before breaks, before using restroom facilities, and at the end of the work. Wear the personal protective equipment specified below. Do not eat, drink or smoke when using this product.

**Personal protective equipment:**



Respiratory protection:	Not required.
Hand protection:	Wear protective gloves made of nitrile or neoprene rubber
Eye/face protection:	Wear safety goggles if there is a risk of eye splash.
Skin protection:	Not required.

**Environmental exposure controls:**

Make sure that when using the product damming material is available in immediate vicinity. If possible use spillage tray during work.

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**SECTION 9: Physical and chemical properties**


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

Appearance:	Viscous liquid
Odour:	Mild
Odour threshold:	-
pH:	-
Melting point/ Freezing Point (°C):	-
Initial boiling point and boiling range (°C):	-
Flash point (°C):	500
Evaporation rate:	-
Flammability (solid, gas)	-
Upper / lower flammability or explosion limits (vol-%):	-
Vapour pressure (kPa, 180 °C):	-
Vapour density (air=1)	-
Relative density:	1.6 (Met DIN 51757) g/cm <sup>3</sup> , 20 °C
Solubility(ies)	-
Partition coefficient: n-octanol/water:	-
Auto-ignition temperature (°C):	500
Decomposition temperature (°C):	-
Viscosity (cP, 30 °C):	3500-4000 cPs, 25 °C
Explosive properties:	-
Oxidising properties:	-

**9.2. Other information**

Content of solids (%):	-
Potlife:	1 time

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**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data.

**10.2. Chemical stability**

The product is stable when used in accordance with the supplier's directions.

Hardening time for the product is 20-50 min. at 20 °C.

**10.3. Possibility of hazardous reactions**

None known.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

Avoid contact with strong acids, strong bases, strong reducing agents and strong oxidising agents.

**10.6. Hazardous decomposition products**

Cured materials may decompose and release hazardous gases at temperatures above 150° C.

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**SECTION 11: Toxicological information**


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**11.1. Information on toxicological effects****Acute toxicity:** Ingestion may cause discomfort.

Substance	Route of exposure	Species	Test	Result
1,4-bis(2,3-epoxypropoxy) Butane	Oral	Rat	LD50	1118 mg/kg bw
1,4-bis(2,3-epoxypropoxy) Butane	Dermal	Rabbit	LD50	> 2150 mg/kg bw
Benzyl alcohol	Oral	Rat	LD50	1570 mg/kg bw
Benzyl alcohol	Inhalation	Rat	LC50 / 4 Hours	> 4178 mg/m <sup>3</sup> air

**Skin corrosion/irritation:** Irritating to skin – may cause reddening.**Serious eye damage/irritation:** Irritating to eyes. Causes a burning sensation and tearing.**Respiratory or skin sensitisation:** May cause an allergic skin reaction.**Germ cell mutagenicity:** Based on the existing data, the classification is not met.**Carcinogenicity:** Based on the existing data, the classification is not met.**Reproductive toxicity:** Based on the existing data, the classification is not met.**STOT-single exposure:** Inhalation may cause irritation to the upper airways.**STOT-repeated exposure:** Based on the existing data, the classification is not met.**Aspiration hazard:** Based on the existing data, the classification is not met.

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**SECTION 12: Ecological information**


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**12.1. Toxicity**

Substance	Test duration	Species	Test	Result
1,4-bis(2,3-epoxypropoxy) Butane	96 Hours	Fish	LC50	24 mg/L
1,4-bis(2,3-epoxypropoxy) Butane	24 Hours	Daphnia	EC50	75 mg/L
Benzyl alcohol	48 Hours	Fish	LC50	770 mg/L
Benzyl alcohol	48 Hours	Daphnia	EC50	230 mg/L
Benzyl alcohol	72 Hours	Algae	EC50	500 mg/L

**12.2. Persistence and degradability**

Substance	Biodegradability	Test	Result
1,4-bis(2,3-epoxypropoxy) Butane	No	OECD Guideline 301 F	28 days: 43%
Benzyl alcohol	Yes	OECD Guideline 301 D	14 days: 92-96 %

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
1,4-bis(2,3-epoxypropoxy) Butane	No	-0.269	-
Benzyl alcohol	No	1.1	-

### 12.4. Mobility in soil

Test data are not available.

### 12.5. Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB.

### 12.6. Other adverse effects

Toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste. Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

#### EWC Code

08 04 09

20 01 27

### Specific labelling

Epoxy waste. Be careful! Risk of eczema!

### Contaminated packaging:

Uncleansed packaging is to be disposed of via the local waste-removal scheme.

## SECTION 14: Transport information

The product is covered by the rules for transport of dangerous goods.

According to ADR 2015 substances/products covered by UN3077/UN3082 are not regarded as dangerous goods if carried in quantities of less than 5 kg (or 5 L) due to SP 375.

### 14.1 -14.4.

#### ADR

UN number	UN proper shipping name	Transport hazard class(es)	Packing group
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700))	9	III

#### IMDG

UN-no.:	Proper shipping name	Transport hazard class(es)	Packing group
3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700))	9	III

#### 14.5. Environmental hazards

If the quantity transported exceeds 5 kg or litre must be labelled with an environmental hazard.

#### 14.6. Special precautions for user

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

Not relevant.

### SECTION 15: Regulatory information

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

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##### Restrictions for application:

Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product. Young people above 15 years are exempted this rule, if the product is a part of an education/training.

Persons with eczema or diagnosed epoxyallergy must not work with the product. Persons with severely sweaty hands (hyperhidrosis manuum) must not work with the product.

##### Demands for specific education:

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##### Additional labelling:

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#### 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

### SECTION 16: Other information

#### Other information:

##### Sources:

EC regulation 1907/2006 (REACH).

Directive 2000/532/EC.

EC Regulation 1272/2008 (CLP).

EH40/2005 Workplace exposure limits (Third edition, 2018).

##### Full text of H-phrases as mentioned in section 2+3:

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H411 - Toxic to aquatic life with long lasting effects.

EUH205 - Contains epoxy constituents. May produce an allergic reaction.

Classification according to Regulation (EC) Nr. 1272/2008:	
Skin Irrit. 2;H315	Calculation method
Skin Sens. 1;H317	Calculation method
Eye Irrit. 2;H319	Calculation method
Aquatic Chronic 2;H411	Calculation method
EUH205	Calculation method

**Abbreviations and acronyms used in the safety data sheet:**

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals. Regulation (EC) No 1907/2006.

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

CAS-Number.: Chemical Abstracts Service number.

EC-Number.: EINECS and ELINCS Number (see also EINECS and ELINCS).

DNEL: Derived No Effect Level.

PNEC(s): Predicted No Effect Concentration(s).

STOT: Specific Target Organ Toxicity.

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).

LC50: Lethal Concentration to 50 % of a test population.

EC50: The effective concentration of substance that causes 50% of the maximum response.

PBT: Persistent, Bioaccumulative and Toxic.

vPvB: Very Persistent and Very Bioaccumulative.

**Other**

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

**Minor changes have been made in following sections:**

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**This material safety data sheet replaces version: 1.0**

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