

# SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

## 1. Identification

**Product identifier:** DABCO DMDEE

### Other means of identification

None.

### Recommended restrictions

**Recommended use:** Industrial use

**Restrictions on use:** None known.

### Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation  
Nutrition & Care  
PO Box 34628  
Richmond, VA 23234  
USA

Telephone : +1 804 727 0700

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E-mail : product-regulatory-services@evonik.com

### Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Serious Eye Damage/Eye Irritation Category 2B

### Label Elements

**Hazard Symbol:** No symbol

**Signal Word:** Warning

**Hazard Statement:** Causes eye irritation.

#### Precautionary Statements

**Prevention:** Wash thoroughly after handling.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Hazard(s) not otherwise classified (HNOC):** None.

### 3. Composition/information on ingredients

#### Substances

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) <sup>*</sup>
2,2'-Dimorpholinyl-diethyl ether		6425-39-4	50 - <100%

<sup>\*</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

### 4. First-aid measures

#### Description of necessary first-aid measures

**General information:** Immediately remove contaminated clothing.

**Inhalation:** Ensure supply of fresh air. Seek medical advice if symptoms occur.

**Skin Contact:** In case of contact with skin wash off with soap and water. Seek medical advice if symptoms occur.

**Eye contact:** In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice

**Ingestion:** Immediately rinse mouth and drink plenty of water (200-300 ml). Seek medical attention.

**Personal Protection for First-aid Responders:** Do not inhale explosion and/or combustion gases, Use self-contained breathing apparatus and wear protective suit

#### Most important symptoms/effects, acute and delayed

**Symptoms:** Serious eye irritation

**Hazards:** No data available.

#### Indication of immediate medical attention and special treatment needed

**Treatment:** Treat symptomatically.

### 5. Fire-fighting measures

**General Fire Hazards:** Collect contaminated firefighting water separately, must not be discharged into the drains.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** foam, carbon dioxide, dry powder, water spray.

**Unsuitable extinguishing media:** High volume water jet.

**Specific hazards arising from the chemical:** In the event of fire the following can be released: - carbon dioxide, carbon monoxide - Nitrogen oxides (NOx) Under certain conditions of combustion traces of other toxic substances cannot be excluded

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Vapours may form explosive mixtures with air

**Special protective equipment for fire-fighters:** Do not inhale explosion and/or combustion gases Use self-contained breathing apparatus and wear protective suit

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep away sources of ignition. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with the regulations.

**Environmental Precautions:** Do not allow to enter drains or waterways Do not discharge into the subsoil/soil.

**7. Handling and storage**

**Handling**

**Technical measures (e.g. Local and general ventilation):** No data available.

**Safe handling advice:** No special measures necessary if stored and handled as prescribed. Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols.

**Contact avoidance measures:** No data available.

**Hygiene measures:** Wash hands before breaks and at the end of workday. Do not eat, drink or smoke when working. Remove soiled or soaked clothing immediately.

**Storage**

**Safe storage conditions:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep only in the original container.

**Safe packaging materials:** Suitable materials: Polyethylene. stainless steel: 1.4571 or 1.4541, passivated  
Unsuitable materials: copper, brass

**Storage Temperature:** No data available.

## 8. Exposure controls/personal protection

### Control Parameters

### Occupational Exposure Limits

None of the components have assigned exposure limits.

**Appropriate Engineering Controls** No data available.

### Individual protection measures, such as personal protective equipment

**Eye/face protection:** Safety glasses with side shields

### Skin Protection

**Hand Protection:** Material: Butyl rubber.  
Break-through time: > 480 min

**Skin and Body Protection:** protective clothing

**Respiratory Protection:** in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	colourless to yellowish
<b>Odor:</b>	amine-like
<b>Odor Threshold:</b>	not measured
<b>pH:</b>	10.4 (100 g/l, 20 °C)
<b>Freezing point:</b>	-28 °C
<b>Boiling Point:</b>	309 °C
<b>Flash Point:</b>	146 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	This product has not been classified as flammable.
<b>Explosive limit - upper:</b>	3.3 %(V)
<b>Explosive limit - lower:</b>	0.6 %(V)
<b>Vapor pressure:</b>	0.66 hPa (20 °C)
<b>Vapor density (air=1):</b>	not measured
<b>Density:</b>	1.0603 g/cm <sup>3</sup> (20 °C)
<b>Relative density:</b>	not measured
<b>Solubility in Water:</b>	completely miscible

<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	0.5 (OECD 117)
<b>Self Ignition Temperature:</b>	not spontaneously flammable
<b>Decomposition Temperature:</b>	150 °C
<b>Kinematic viscosity:</b>	216.6 mm <sup>2</sup> /s (20 °C, Measured)
<b>Dynamic viscosity:</b>	29 mPa.s (20 °C)
<b>Other information</b>	
<b>Molecular weight:</b>	244.33 g/mol (C <sub>12</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> )
<b>Explosive properties:</b>	no danger of explosion
<b>Oxidizing properties:</b>	not oxidizing
<b>Minimum ignition temperature:</b>	210 °C (literature)
<b>Metal Corrosion:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	see section "Possibility of hazardous reactions".
<b>Chemical Stability:</b>	The product is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Exothermic reaction with strong acids. Reactions with oxidizing agents.
<b>Conditions to avoid:</b>	Heat, sparks, flames.
<b>Incompatible Materials:</b>	Strong acids Oxidizing agent Nitrosating agents.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	If handled correctly, not a relevant route of exposure. Information on effects are given below.
<b>Skin Contact:</b>	Relevant route of exposure. Information on effects are given below.
<b>Eye contact:</b>	Relevant route of exposure. Information on effects are given below.
<b>Ingestion:</b>	If handled correctly, not a relevant route of exposure. Information on effects are given below.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

## Information on toxicological effects

### Acute toxicity (list all possible routes of exposure)

#### Oral

**Product:** LD 50 (Rat): > 2,000 mg/kg

#### Dermal

**Product:** LD 50 (Rabbit): 3,038 mg/kg

#### Inhalation

**Product:** Not classified for acute toxicity based on available data.

### Repeated dose toxicity

**Product:** No data available.

### Skin Corrosion/Irritation

**Product:** Moderate skin irritation

### Serious Eye Damage/Eye Irritation

**Product:** Irritant Rabbit: Irritating.

### Respiratory or Skin Sensitization

**Product:** , OECD 406 Non sensitising

### Carcinogenicity

**Product:** No data available. No evidence that cancer may be caused.

### IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

### US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogens present or none present in regulated quantities

### Germ Cell Mutagenicity

#### In vitro

**Product:** No data available.

#### In vivo

**Product:** No data available.

### Reproductive toxicity

**Product:** No data is available on the product itself. No evidence of effects of reproductive / developmental toxicity.

### Specific Target Organ Toxicity - Single Exposure

**Product:** Based on the information available, organ-specific toxicity is not to be expected after one single exposure.

### Specific Target Organ Toxicity - Repeated Exposure

**Product:** Based on the information available, organ-specific toxicity is not to be expected after repeated exposure.

**Aspiration Hazard**

**Product:** Not classified

**Other effects:** Causes serious eye irritation.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish**

**Product:** LC 50 (Brachydanio rerio (zebrafish), 96 h): > 2,150 mg/l The reported toxic effects relate to the nominal concentration.

**Aquatic Invertebrates**

**Product:** (Daphnia magna, 48 h): > 100 mg/l The reported toxic effects relate to the nominal concentration. Only a limit concentration was tested (LIMIT test).

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s):**

2,2'-Dimorpholinyl-diethyl ether ErC50 (Alga, 72 h): > 100 mg/l (OECD 201)

**Chronic hazards to the aquatic environment:****Fish**

**Product:** Trial not required for scientific reasons.

**Aquatic Invertebrates**

**Product:** Trial not required for scientific reasons.

**Toxicity to Aquatic Plants**

**Product:** NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): > 100 mg/l (OECD 201) The reported toxic effects relate to the nominal concentration. Only a limit concentration was tested (LIMIT test).

**Specified substance(s):**

2,2'-Dimorpholinyl-diethyl ether

**Persistence and Degradability****Biodegradation**

**Product:** No data available.

**Components:**

2,2'-Dimorpholinyl-diethyl ether 4 % (28 d, OECD 301 C) The product is not biodegradable.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** Significant concentrations do not accumulate.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: 0.5 25 °C (OECD 117)

**Mobility in soil:**

No data available.

**Components:**

2,2'-Dimorpholinyl-diethyl ether No data available.

**Other adverse effects:**

Do not allow to enter soil, waterways or waste water canal.

**13. Disposal considerations**

**Disposal methods:**

In accordance with local authority regulations, take to special waste incineration plant

**Contaminated Packaging:**

If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

**14. Transport information**

**Domestic regulation**

**49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)**

None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Serious eye damage or eye irritation

**US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances**

None present or none present in regulated quantities.

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient requiring a warning under CA Prop 65.

**US. New Jersey Worker and Community Right-to-Know Act**

No ingredient regulated by NJ Right-to-Know Law present.

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

No ingredient regulated by PA Right-to-Know Law present.

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

**Inventory Status:**

US TSCA Inventory:	Included on Inventory.
Canada DSL Inventory List:	Included on Inventory.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	2
<b>Flammability</b>	1
<b>Physical Hazards</b>	0
<b>PERSONAL PROTECTION</b>	
E	

E - Safety Glasses, Gloves & Dust Respirator

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

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**Version #:** 1.3

**Further Information:** No data available.

**Revision Information** Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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