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

1.1. Product identifier : DABCO® DMDEE Catalyst

Chemical formula : C<sub>12</sub>H<sub>24</sub>N<sub>2</sub>O<sub>3</sub>

Refer to Section 3 for REACH information

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

Use of the Substance/Mixture : Polyurethane Catalyst

Restrictions on Use : No data available.

1.3. Details of the supplier of the safety data sheet : Evonik Materials Netherlands B.V.  
Kanaalweg 15, P.O. Box 3193  
NL-3502 GD Utrecht  
The Netherlands  
VAT-IDNo. NL807780972B01

Email Address – Technical Information : Product-Regulatory-Services@evonik.com

Telephone : +49 (0) 201 173 01

1.4. Emergency telephone number : Tel Nr. +44 (0) 1235 239 670

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**SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

Skin corrosion - Category 2 H315:Causes skin irritation.

Eye irritation - Category 2 H319:Causes serious eye irritation.

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## 2.2. Label elements

Hazard pictograms/symbols



Signal Word: Warning

Hazard Statements:

H315: Causes skin irritation.  
H319: Causes serious eye irritation.

Precautionary Statements:

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

Response : P301+P330+P331 : IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 : IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 : Immediately call a POISON CENTRE/doctor.

Disposal : P501: Disposal of contents/container to be specified in accordance with regulations.

## 2.3. Other hazards

Severe eye irritant.  
Severe respiratory irritant.  
Severe skin irritant.

## SECTION 3: Composition/information on ingredients

Substance/Mixture : Substance

Components	EINECS / ELINCS Number	CAS Number	Concentration (Weight)
2,2'-Dimorpholinyl-diethyl ether	229-194-7	6425-39-4	100 %

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Components	Classification (CLP)	REACH Reg. #
2,2'-Dimorpholinyl-diethyl ether	Skin Corr/Irrit 2 ;H315 Eye Irrit. 2 ;H319	

If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, or the registration date has not yet come due. Refer to section 16 for full text of each relevant hazard statement (H).

CHEMICAL FAMILY: Tertiary Amine

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
- Eye contact : Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.
- Skin contact : Wash off immediately with plenty of water for at least 20 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.
- Ingestion : Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side.
- Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

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

- Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

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

No data available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>).  
Dry chemical.  
Dry sand.  
Limestone powder.

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- Extinguishing media which must not be used for safety reasons. : No data available.
- 5.2. Special hazards arising from the substance or mixture : Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
- 5.3. Advice for firefighters : Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Do not allow run-off from firefighting to enter drains or water courses., Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures : Wear suitable protective clothing, gloves and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
- 6.2. Environmental precautions : Construct a dike to prevent spreading. Construct a dike to prevent spreading.
- 6.3. Methods and material for containment and cleaning up : Call Emergency Response number for advice. Approach suspected leak areas with caution. Place in appropriate chemical waste container.
- Additional advice : Open enclosed spaces to outside atmosphere. If possible, stop flow of product.
- 6.4. Reference to other sections : For more information refer to Sections 8 & 13

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use only in well-ventilated areas. Avoid contact with eyes. Avoid breathing vapors and/or aerosols. Use personal protective equipment. When using, do not eat, drink or smoke.

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

Do not store near acids. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Keep containers tightly closed in a dry, cool and well-ventilated place.

### Technical measures/Precautions

Do not store in reactive metal containers.

## 7.3. Specific end use(s)

Refer to section 1 or the extended SDS if applicable.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

If applicable, refer to the extended section of the SDS for further information on CSA.

### 8.2. Exposure controls

#### Engineering measures

Provide readily accessible eye wash stations and safety showers.

Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

#### Personal protective equipment

Respiratory protection : Wear appropriate respirator when ventilation is inadequate.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  
Butyl-rubber  
Nitrile rubber.  
Neoprene gloves.  
Impervious gloves.

Eye/face Protection : Chemical resistant goggles must be worn.

Skin and body protection : Long sleeve shirts and trousers without cuffs.

Environmental exposure controls : Construct a dike to prevent spreading.

Special instructions for protection and hygiene : Discard contaminated leather articles. Provide readily accessible eye wash stations and safety showers. Wash hands at the end of each workshift and before eating, smoking or using the toilet. Provide readily accessible eye wash stations

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and safety showers.

Environmental Exposure Controls : If applicable, refer to the extended section of the SDS for further information on CSA.

## SECTION 9: Physical and chemical properties

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

- (a/b) Physical state/Colour : Liquid. Light yellow.
- (c) Odour : Fishy.
- (d) Density : 1.06 g/cm<sup>3</sup> (66.174 lb/ft<sup>3</sup>) at 21 °C ( 70 °F)
- (e) Relative Density : 1.06 (water = 1)
- (f) Melting point / freezing point : No data available.
- (g) Boiling point/range : > 608 °F (> 320 °C)
- (h) Vapor pressure : 5.17 mmHg at 70 °F (21 °C)
- (i) Water solubility : Completely soluble.
- (j) Partition coefficient (n-octanol/water) : No data available.
- (k) pH : 11.7
- (l) Viscosity : No data available.
- (m) Particle characteristics : No data available.
- (n) Upper and lower explosion / flammability limits : Not applicable.
- (o) Flash point : 295 °F (146 °C)
- (p) Autoignition temperature : No data available.
- (q) Decomposition temperature : No data available.

### 9.2. Other information

- Explosive properties : No data available.
- Oxidizing properties : No data available.

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Odor threshold : No data available.  
Evaporation rate : No data available.  
Flammability (solid, gas) : Not applicable.  
Relative vapor density : Not applicable.

## SECTION 10: Stability and reactivity

10.1. Reactivity : Refer to possibility of hazardous reactions and/or incompatible materials sections.

10.2. Chemical stability : Stable under normal conditions.

10.3. Possibility of hazardous reactions : No data available.

10.4. Conditions to avoid : No data available.

10.5. Incompatible materials : Organic acids (i.e. acetic acid, citric acid etc.).  
Mineral acids.  
Sodium hypochlorite.  
Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.  
Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.  
Oxidizing agents.

10.6. Hazardous decomposition products : Nitric acid.  
Ammonia  
Nitrogen oxides (NO<sub>x</sub>).  
Nitrogen oxide can react with water vapors to form corrosive nitric acid.  
Carbon monoxide.  
Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye : Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. Exposed individuals may see rings around bright lights. This effect is temporary and has no known residual effect. Product vapor can cause glauropsia (corneal edema ) when absorbed into the tissue of the eye from

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- the atmosphere. Severe eye irritation.
- Effects on Skin : No data available.
- Inhalation Effects : Harmful if inhaled and may cause delayed lung injury. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
- Ingestion Effects : No data available.
- Symptoms : Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

## Acute toxicity

- Acute Oral Toxicity : LD50 : 2,025 mg/kg Species : Rat.
- Acute Inhalation Toxicity : No data is available on the product itself.
- Inhalation - Components  
Dimorpholino-2,2-diethylether LC50 :
- Acute Dermal Toxicity : LD50 : 3,038 mg/kg Species : Rabbit.
- Skin corrosion/irritation : Moderate skin irritation.
- Serious eye damage/eye irritation : Moderate eye irritation.
- Sensitization. : No data available.

## Chronic toxicity or effects from long term exposures

- Carcinogenicity : No data available.
- Reproductive toxicity : No data is available on the product itself.
- Germ cell mutagenicity : No data is available on the product itself.
- Specific target organ systemic toxicity (single exposure) : Eyes. Respiratory system. Skin. Eye disease. Asthma. Skin disorders and Allergies.
- Specific target organ systemic toxicity (repeated exposure) : No data available.
- Aspiration hazard : No data available.



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## SECTION 12: Ecological information

### 12.1. Toxicity

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data is available on the product itself.

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data is available on the product itself.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

If applicable, refer to the extended section of the SDS for further information on CSA.

### 12.6. Other adverse effects

No data available.

Effect on the ozone layer

Ozone Depleting Potential : No data available.

Global Warming Potential : No data available.

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## SECTION 13: Disposal considerations

13.1. Waste treatment methods : Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

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## SECTION 14: Transport information

### ADR

Not dangerous goods

### IATA

Not dangerous goods

### IMDG

Not dangerous goods

### RID

Not dangerous goods

#### Further Information

The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact customer service.

## SECTION 15: Regulatory information

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

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

WGK Identification Number: : 1 - slightly water endangering

#### Other Regulations

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

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COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 1272/2008 the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

## 15.2. Chemical safety assessment

If this product does not contain exposure scenarios, the components in this product are either exempt from REACH, do not meet the minimum volume threshold for a CSA, or the CSA has not yet been completed.

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## SECTION 16: Other information

Ensure all national/local regulations are observed.

### Hazard Statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

### Indication of Method:

Skin corrosion Category 2 Causes skin irritation. Calculation method

Eye irritation Category 2 Causes serious eye irritation. Calculation method

### Abbreviations and acronyms:

ATE - Acute Toxicity Estimate

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

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

EINECS - European Inventory of Existing Commercial Chemical Substances

ELINCS - European List of Notified Chemical Substances

CAS# - Chemical Abstract Service number

PPE - Personal Protection Equipment

Kow - octanol-water partition coefficient

DNEL - Derived No Effect Level

LC50 - Lethal Concentration to 50 % of a test population

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

NOEC - No Observed Effect Concentration

PNEC - Predicted No Effect Concentration

RMM - Risk Management Measure

OEL - Occupational Exposure Limit

PBT - Persistent, Bioaccumulative and Toxic

vPvB - Very Persistent and Very Bioaccumulative

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STOT - Specific Target Organ Toxicity  
CSA - Chemical Safety Assessment  
EN - European Standard  
UN - United Nations  
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
IATA - International Air Transport Association  
IMDG - International Maritime Dangerous Goods  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
WGK - Water Hazard Class

Key literature references and sources for data:

ECHA - Guidance on the compilation of safety data sheets  
ECHA - Guidance on the application of the CLP Criteria  
ARIEL database

Prepared by : Evonik, Product Regulatory Department

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws. COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

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