

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 26.11.2010

Version: 5.0

Product: **MSEAL 688 PART B GRY POL**

(ID no. 30472781/SDS_GEN_EU/EN)

Date of print 27.12.2010

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

MSEAL 688 PART B GRY POL

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

Recommended use: polyurethane component

Details of the supplier of the safety data sheet

Company:

BASF South East Asia Pte Ltd.
7 Temasek Boulevard,
#35-01 Suntec Tower One, 038987,
SINGAPORE

Contact address:

BASF SE
67056 Ludwigshafen
GERMANY

Telephone: +49 621 60-0

E-mail address: global.info@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Label elements

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

Pictogram:



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Signal Word:

Danger

Hazard Statement:

H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H373 May cause damage to organs through prolonged or repeated oral exposure.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements (Response):

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements (Storage):

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

Hazard symbol(s)

C Corrosive.
 N Dangerous for the environment.

R-phrases(s)

R22 Harmful if swallowed.
 R34 Causes burns.
 R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazard determining component(s) for labelling: diethylmethylbenzenediamine, polyetherdiamine

Classification of the substance or mixtureAccording to Regulation (EC) No 1272/2008 [CLP]

Acute toxicity: Cat. 4 (oral)

Skin corrosion/irritation: Cat. 1B

Specific target organ toxicity following repeat exposure: Cat. 2 (oral)

Chronic hazards to the aquatic environment: Cat. 2

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful if swallowed.

Causes burns.

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other hazards

Assessment PBT / vPvB:

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria..

3. Composition/Information on Ingredients**Mixtures**Chemical nature

Preparation based on: polyol, catalyst, additives

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

polyetherdiamine

Content (W/W): $\geq 25 \%$

CAS Number: 9046-10-0

Acute tox.: Cat. 4 (oral)

Skin corr./irr.: Cat. 1B

Eco chronic: Cat. 3

H302, H314, H412

Glyceryl poly(oxypropylene)triamine

Content (W/W): $\geq 10 \%$ - $< 25 \%$

CAS Number: 64852-22-8

Skin corr./irr.: Cat. 2

Eye dam./irr.: Cat. 1

Eco chronic: Cat. 3

H315, H318, H412

diethylmethylbenzenediamine

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Content (W/W): $\geq 10\%$ - $< 25\%$	Acute tox.: Cat. 4 (dermal)
CAS Number: 68479-98-1	Acute tox.: Cat. 4 (oral)
EC-Number: 270-877-4	Eye dam./irr.: Cat. 2
INDEX-Number: 612-130-00-0	STOT rep.: Cat. 2 (oral)
	Eco chronic: Cat. 1
	Eco acute: Cat. 1
	H302, H312, H319, H373, H400, H410

Hazardous ingredients

according to Directive 1999/45/EC

polyetherdiamine

Content (W/W): $\geq 25\%$
CAS Number: 9046-10-0
Hazard symbol(s): C
R-phrases: 34, 22, 52/53

Glyceryl poly(oxypropylene)triamine

Content (W/W): $\geq 10\%$ - $< 25\%$
CAS Number: 64852-22-8
Hazard symbol(s): Xi
R-phrases: 38, 41, 52/53

diethylmethylbenzenediamine

Content (W/W): $\geq 10\%$ - $< 25\%$
CAS Number: 68479-98-1
EC-Number: 270-877-4
INDEX-Number: 612-130-00-0
Hazard symbol(s): Xn, N
R-phrases: 21/22, 36, 48/22, 50/53

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

4. First-Aid Measures

Description of first aid measures

Remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: skin corrosion

Hazards: Symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures**Extinguishing media**Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide**Special hazards arising from the substance or mixture**carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.**Advice for fire-fighters**Special protective equipment:
Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

Environmental precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning upFor large amounts: Pump off product.
For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of contaminated material as prescribed.**Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage**Precautions for safe handling**

Ensure thorough ventilation of stores and work areas.

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Protection against fire and explosion:

No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Segregate from acids. Segregate from oxidants.

Suitable materials for containers: Steel with polyethylene liner, Stainless steel 1.4306 (V2A), High density polyethylene (HDPE), stainless steel with PTFE-coating, carbon steel (iron)

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection**Control parameters**Components with workplace control parameters

none

Exposure controlsPersonal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures

Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Form:	liquid
Colour:	yellowish
Odour:	amine-like
Odour threshold:	not applicable

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pH value: 8 - 10
(20 °C)

solidification temperature: < 0 °C

Boiling point: > 200 °C

Flash point: > 110 °C (DIN 51758)

Flammability: not applicable

Ignition temperature: > 250 °C

Vapour pressure: < 10 mbar
(20 °C)

Density: > 1.0 g/cm³ (DIN 51757)
(20 °C)

Solubility in water: partly soluble

Partitioning coefficient n-octanol/water (log K_{ow}):
not applicable

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Other information

Miscibility with water:
partly miscible

10. Stability and Reactivity**Reactivity**

Corrosion to metals: No corrosive effect on metal.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Temperature: < 0 °C

Incompatible materials

Substances to avoid:
acids, oxidizing agents, isocyanates

Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information**Information on toxicological effects**

Acute toxicity

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Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

*Information on: diethylmethylbenzenediamine**Experimental/calculated data:**LD50 rat (oral): 738 mg/kg (OECD Guideline 401)**Information on: polyetherdiamine**Experimental/calculated data:**LD50 rat (oral): 480 mg/kg*

Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

*Information on: polyetherdiamine**Experimental/calculated data:**Skin corrosion/irritation rabbit: Corrosive. (Draize test)*
-----*Information on: diethylmethylbenzenediamine**Experimental/calculated data:**Serious eye damage/irritation rabbit: Irritant.**Information on: polyetherdiamine**Experimental/calculated data:**Serious eye damage/irritation rabbit: irreversible damage*

Respiratory/Skin sensitization

Assessment of sensitization:

The chemical structure does not suggest a sensitizing effect.

*Information on: polyetherdiamine**Experimental/calculated data:*Non-sensitizing.

Germ cell mutagenicity

Assessment of mutagenicity:

The chemical structure does not suggest such an effect.

Carcinogenicity

Assessment of carcinogenicity:

The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The chemical structure does not suggest such an effect.

Developmental toxicity

Assessment of teratogenicity:
The chemical structure does not suggest such an effect.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
Repeated oral exposure may affect certain organs. Repeated exposure to the substance by dermal administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by inhalative administration leads to effects similar to those found after single exposure.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

The product has not been tested. The statement has been derived from products of a similar structure or composition.

*Information on: diethylmethylbenzenediamine
danger of serious health hazards by longer exposure (subchronic, rat, oral)*

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

*Information on: diethylmethylbenzenediamine
Toxicity to fish:
LC50 (48 h) 194 mg/l, Leuciscus idus (DIN 38412 Part 15)*

*Information on: diethylmethylbenzenediamine
Aquatic invertebrates:
EC50 (48 h) 0.5 mg/l, Daphnia magna (OECD Guideline 202, part 1)*

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Information on: diethylmethylbenzenediamine
Microorganisms/Effect on activated sludge:
EC50 (16 h) 170 mg/l, Pseudomonas sp. (DIN 38412 Part 8)

Persistence and degradability

Assessment biodegradation and elimination (H₂O):
Poorly biodegradable.

Elimination information:
Poorly biodegradable.

Information on: diethylmethylbenzenediamine
Elimination information:
< 1.0 % (28 d) (OECD 301D; EEC 92/69, C.4-E) Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential:
The product contains components with potential for bioaccumulation

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:
| Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria..

Information on: diethylmethylbenzenediamine
Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria..

Additional information

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

Other ecotoxicological advice:
Do not allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product has not been tested. The statement has been derived from products of a similar structure or composition.

13. Disposal Considerations

Waste treatment methods

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Incinerate in suitable incineration plant, observing local authority regulations.

Waste key:

07 02 08^a other still bottoms and reaction residues

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

ADR

Hazard class:	8
Packing group:	III
ID number:	UN 2735
Hazard label:	8, EHSM
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (contains DIETHYLMETHYLBENZENEDIAMINE, POLYETHERDIAMINE)

RID

Hazard class:	8
Packing group:	III
ID number:	UN 2735
Hazard label:	8, EHSM
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (contains DIETHYLMETHYLBENZENEDIAMINE, POLYETHERDIAMINE)

Inland waterway transport

ADNR

Hazard class:	8
Packing group:	III
ID number:	UN 2735
Hazard label:	8, EHSM
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (contains DIETHYLMETHYLBENZENEDIAMINE, POLYETHERDIAMINE)

Sea transport

IMDG

Hazard class:	8
Packing group:	III
ID number:	UN 2735
Hazard label:	8, EHSM
Marine pollutant:	YES
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (contains DIETHYLMETHYLBENZENEDIAMINE, POLYETHERDIAMINE)

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Air transport

IATA/ICAO

Hazard class:	8
Packing group:	III
ID number:	UN 2735
Hazard label:	8
Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (contains DIETHYLMETHYLBENZENEDIAMINE, POLYETHERDIAMINE)

15. Regulatory Information

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

Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines. Exposure scenarios for the mixture can not be provided at the moment because exposure scenarios are not yet available for all relevant substances due to registration timelines. For advice on essential measures see sections 7 and 8 of this safety data sheet.

16. Other Information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 3:

C	Corrosive.
Xi	Irritant.
Xn	Harmful.
N	Dangerous for the environment.
34	Causes burns.
22	Harmful if swallowed.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
38	Irritating to skin.
41	Risk of serious damage to eyes.
21/22	Harmful in contact with skin and if swallowed.
36	Irritating to eyes.
48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated oral exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.