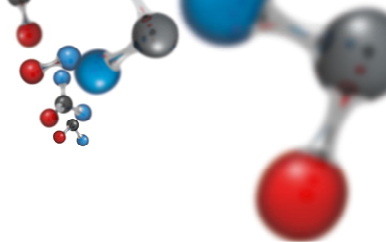


SAFETY DATA SHEET

N,N-DIMETHYLBENZYLAMINE



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

1.1 Product identifier

Chemical name: **N,N-Dimethylbenzylamine**
Registration no.: **01-2119529232-48-0001**
Index number: **612-074-00-7**
ES (EINECS) number: **203-149-1**
CAS number: **103-83-3**
Other names of the substance: **N-(Phenylmethyl)dimethylamine**

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

Uses of the substance: **Dimethylbenzylamine (BDMA) is used as a catalyst for soft polyester-based polyurethane systems, semisolid foams, pre-polymerisation agents, to improve the effect of impregnation agents on cellulose fibres (the overview of exposure scenarios is set out in Annex 1).**

Uses advised against: **Not defined.**

1.3 Details of the supplier of the safety data sheet

Name: **BorsodChem MCHZ, s.r.o.**
Name or business name: **BorsodChem MCHZ, s.r.o.**
Place of business or headquarters: **Chemická 2039/1, 709 00 Ostrava-Mariánské Hory, Czech Republic**
Identification number: **26019388**
Telephone: **+420 596 641 111**
Fax: **+420 596 642 040**
E-mail of the technically competent person responsible for the safety data sheet: **zsvobodova@bc-mchz.cz**

1.4 Emergency telephone number

Company telephone number: **+420 596 643 221 or 596 620 794 non-stop**
24-hours emergency contact: CHEMTREC, telephone number: 001-703-527-3887, company code CCN 206072

**The National Poisons Information Service (NPIS), City Hospital, Birmingham, B18 7QH, UK
Tel: +44 121 507 4123, fax: +44 121 507 5580, e-mail: allistervale@npis.org, www.npis.org**

**National Capital Poison Center, 3201 New Mexico Ave, Suite 310 Washington, DC 20016
Emergency Line: 1-800-222-1222, fax: 202-362-8377, e-mail: pc@poison.org, www.poison.org**

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

According to Regulation (EC) no. 1272/2008:

Flam. Liq. 3; H226 Flammable liquid and vapour.

Acute Tox. 4; H312 Harmful in contact with skin.

Acute Tox. 4; H302 Harmful if swallowed.

Acute Tox. 3; H331 Toxic if inhaled.

Skin Corr. 1B; H314 Causes severe skin burns and eye damage.

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Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

The most important human health adverse effects during use of the substance or preparation:
Corrosive. Contact with skin causes burns.

The most important adverse effects to environment during use of the substance/preparation:
Flammable. Toxic to aquatic life; may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

According to Regulation (EC) no. 1272/2008:

Symbols:



Signal word: DANGER

H phrases:

H226 Flammable liquid and vapour.

H302+H312 Harmful if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

H411 Toxic to aquatic life with long lasting effects.

P phrases:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

2.3 Other hazards

According to COMMISSION REGULATION (EU) No 286/2011 for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 (CLP) substance was classified for environment as Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

The substance is not identified as persistent, bio-accumulative and toxic (PBT) or very persistent, very bio-accumulative (vPvB) under Annex XIII of Regulation 1907/2006/EC.

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N,N-DIMETHYLBENZYLAMINE

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	N,N-Dimethylbenzylamine
Index number	612-074-00-7
EC No.	203-149-1
CAS No.	103-83-3
Substance content (% w.) min.	99.0
Synonyms	N-(Phenylmethyl)dimethylamine

Impurities: < 1 % w., CMR impurities < 0.1 % w.

3.2 Mixtures

This is a chemical substance.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Remove the victim quickly and considering own safety to fresh air, do not let the victim walk! Depending on situation, rinsing of oral cavity and nose, if necessary, with water is recommended. If the victim's clothing is contaminated, change the victim and protect him against cold. Ensure breathing. Call a physician!

Skin: Remove contaminated clothing immediately; before washing or during washing, remove any rings, watches, bracelet that are in places of contact of the substance with skin. Rinse affected areas with stream of lukewarm water, if possible, for 10 to 30 minutes; do not use a brush, soap or neutralising agents! Cover burned areas of skin with a sterile dressing, do not use any ointments or other medical and pharmaceutical products. Cover the victim to protect him against cold. Call a physician!

Contact with eyes: Rinse eyes immediately under running water, open eyelids (even by force); if the victim wears contact lenses, remove them immediately. Do never neutralise! Rinse for 10 to 30 minutes from the inner to the outer ocular angle to prevent running of water in the other eye. Ensure as soon as possible medical treatment by an expert, if possible; the victim must get medical attention even in case of small injury.

Ingestion: DO NOT INDUCE VOMITING - higher risk of harm to digestive tract!!! Risk of perforation of oesophagus and stomach!

RINSE MOUTH IMMEDIATELY WITH WATER AND GIVE TO DRINK 2-5 dl of cold water to attenuate thermal effect of the caustic (due to almost immediate effect to mucous membranes, it is suitable to offer immediately tap water than loose time by looking for chilled liquid - each minute of delay causes irreversible harm to mucous membranes! *Soda water or mineral waters are not recommended, as they may release gaseous carbon dioxide. It is not recommended to consume a lot of liquid, as it could induce vomiting and possible aspiration of the caustic in lungs*). Do not force the victim to drink, especially if he/she feels pain in mouth or throat. In this case, make the victim rinse his/her mouth. DO NOT ADMINISTER ACTIVATED CARBON! (*blackening will make examination of the mucous membranes of more difficult and activated charcoal has not positive effect in case of acids and lyes*). Do not give anything to eat. Do not administer anything by mouth if the victim is unconscious or has convulsions. Get immediate medical attention!

4.2 Most important symptoms and effects, both acute and delayed

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Highly alkaline liquid. Contact with skin causes burns. Vapours highly irritating to mucous membranes. Exposition causes conjunctivitis and inflammation of respiratory tract and may corrode the nasal cavity mucous membranes. Seek medical help in any case!

4.3 Indication of any immediate medical attention and special treatment needed

Local damage like in case of lye burns. Otherwise symptomatic treatment. In case of damage of eyes, rinse eyes carefully. Call an ophthalmologist immediately! Codein against cough. In case of irritation of airways, 5 – 10 or more doses/hour of aerosol dispenser with beclomethasone (e.g. Becotide inhal. dos. aerosol) or dexamethasone (e.g. Auxison dos. aerosol). Attention, lungs oedema may occur after latency of up to 2 days! For prophylaxis, immediately baclomethasone or dexamethasone in aerosol dispenser. At the beginning 4 doses, then 1 dose each 3 minutes until the dispenser is empty, then 1 dose each hour. Administer Hydrocortison intravenously, 250 mg immediately, up to 1000 mg the first day, decrease the dose slowly the second and the third day. Strict rest in bed! Infection prophylaxis!

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: **sprinkled water, foam, powder, CO₂**

Unsuitable extinguishing media: **not specified-**

5.2 Special hazards arising from the substance or mixture: **Flammable liquid. Possibility of release of carbon monoxide and nitrogen oxides. Formation of caustic, toxic and explosive mixtures.**

5.3 Advice for firefighters: **Self-contained breathing apparatus, special protective clothing! (Hazchem-Code: 3W)**

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: **Protection of air ways, protection of non-protected body parts, protection of eyes. Ensure ventilation.**

6.2 Environmental precautions: **Prevent contamination of soil and water in vicinity of accident.**

6.3 Methods and material for containment and cleaning up: **Cover with an absorbent material (Vapex, Vermikulit) and sweep up into a waste container. For methods of disposal see Section 13.**

6.4 Reference to other sections: **Refer to section 8 and 13.**

SECTION 7: Handling and storage

7.1 Precautions for safe handling: **Delivered in rail or truck tanks or in steel barrels or in IBC-containers in designed EX. The recommended maximum temperature during transport is 50 °C. Ventilation provided during emptying.**

7.2 Conditions for safe storage, including any incompatibilities: **Store in easily ventilated rooms in original closed packages or in steel tanks out of heat or fire. Do not store together with foodstuffs, strong oxidising agents and concentrated inorganic acids.**

7.3 Specific end use(s): **Not yet specified.**

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Czech Republic: **not established**

EC countries (2000/39/EC): **not established**

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8.1.1 DNEL (Derived No Effect Level) for exposure of workers

Prolonged exposure (systemic effects) – inhalation:	14.6 mg/m³/8 hours
Prolonged exposure (systemic effects) – dermal:	2.3 mg/kg of weight/day
Prolonged exposure (local effects) – inhalation:	1.0 mg/m³
Prolonged exposure (local effects) – dermal:	not established, corrosive

8.1.2 DNEL (Derived No Effect Level) for general public

Prolonged exposure (systemic effects) – inhalation:	43.7 mg/m³/24 hours
Prolonged exposure (systemic effects) – dermal:	1.25 mg/kg of weight/day
Prolonged exposure (local effects) – inhalation:	not established, corrosive
Prolonged exposure (local effects) – dermal:	not established, corrosive

8.2 Exposure controls

Engineering controls: **Closed system or Local exhaust ventilation (efficiency 98 %).**

Respiratory protection: **if necessary, protective mask with a filter against organic vapours – type A**

Hand protection: **protective gloves (efficiency 90 %)**

Eye protection: **protective glasses or face shield**

Skin protection: **protective clothing**

Other data: **Do not eat, drink and smoke during work. Wash your hands with hot water and soap after work, apply suitable reparative preparations.**

Environmental exposure controls:

Use in a closed circuit, waste gases burnt in a fire crack or cleaned by adsorption (activated carbon), wastewater treated biologically.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	colourless liquid
Odour:	characteristic aromatic
Odour threshold:	not established
pH:	not established
Melting point/freezing point (°C):	-75
Initial boiling point (at 1013 hPa in °C):	180
Flash point (at 1013 hPa in °C):	57
Evaporation rate:	not established
Flammability (solid, gas):	the product is liquid
Upper/lower flammability or explosive limits (% vol.):	not established
Vapour pressure (Pa at 20 °C):	213.57
Vapour density:	not established
Relative density (at 20 °C):	0.9
Solubility (in g/100 ml):	1.2

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Partition coefficient: n-octanol/water (log p_{ow} at 25 °C):	1.98
Auto-ignition temperature (at 1013 hPa in °C):	250
Decomposition temperature:	not established
Viscosity (mPa.s at 20 °C):	not established
Explosive properties:	no explosive properties
Oxidising properties:	no oxidising properties

9.2 Other information

Surface tension (mN/m at 20 °C):	61.47
Dissociation constant (at 20 °C):	8.91

SECTION 10: Stability and reactivity

10.1 Reactivity: **The substance is unstable after heating-up.**

10.2 Chemical stability: **Stable under normal conditions.**

10.3 Possibility of hazardous reactions: **During very hot days and in case of strong heating up of the liquid, formation of corrosive and explosive mixtures with air.**

10.4 Conditions to avoid: **Possibility of ignition in contact with hot surfaces, sparks or open fire.**

10.5 Incompatible materials: **Reacts vigorously with strong oxidising agents and inorganic acids. Avoid contact with food.**

10.6 Hazardous decomposition products: **Combustion may produce toxic carbon monoxide and nitrogen oxides.**

SECTION 11: Toxicological information

Information on toxicological effects

Assessment according CPL

11.1 Acute toxicity: **category 4**

- LD₅₀ (oral, rat) = **579 mg.kg⁻¹**
- LD₅₀ (derm., rabbit) = **1 477 mg.kg⁻¹**
- LC₅₀ (inh., rat) = **2 052 mg.m⁻³/4 h – category 3**

11.2 Irritation and corrosion

Dermal irritation (rabbit): **corrosive, category 1B**

Eye irritation (rabbit): **Causes eye damage**

11.3 Sensitisation

Skin sensitisation (guinea pig): **not proven**

11.4 Mutagenicity (in vitro and in vivo studies): **not proven**

11.5 Carcinogenicity (rabbit): **not proven**

11.6 Reproductive toxicity (rat): **not proven**

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Developmental toxicity study in rat: NOEL: 150 mg/kg/day

11.7 Specific target organs toxicity – single exposure: **not proven**

11.8 Specific target organs toxicity - repeated exposure: **not proven**

11.9 Aspiration hazard: **data not available**

SECTION 12: Ecological information

12.1 Toxicity

12.1.1 Aquatic toxicity

Acute for fish

Fathead Minnow:: LC₅₀ (96 h) = 37.8 mg.l⁻¹

Acute for the invertebrated

Daphnia magna: EC₅₀ (24 h) > 100 mg.l⁻¹

EC₅₀ (48 h) > 100 mg.l⁻¹

Acute for microorganisms

Pseudomonas putida:: EC₁₀ (16 h) = 54.0 mg.l⁻¹ (static in fresh water at room temperature)

Effective concentration for algae

Desmodesmus subspicatus: EC₅₀ (72 h) = 1.34 mg.l⁻¹

NOEC (72 h) = 0.24 mg.l⁻¹ (static)

Classification conclusion: NOEC < 1 mg.l⁻¹, substance is not readily degradable. Toxic to aquatic life with long lasting effects.

12.1.2 Sediment toxicity: **data not available**

12.1.3 PNEC (Predicated No Effect Concentration)

PNEC water (surface):	0.0048 mg/l
PNEC water (sea):	0.00048 mg/l
PNEC sediment:	0.071 mg/kg of weight of dry sediment
PNEC sewage treatment plant:	543 mg/l
PNEC soil:	0.0114 mg/kg of weight of dry soil
PNEC plants:	data not available
PNEC oral administration:	data not available

12.2 Persistence and degradability

Evaluation: The product is not a high bioaccumulation potential substance.

Evaluation: 0 – 2 %/4 weeks = is not readily degradable in aqueous environment (in accordance with OECD 301C).

12.3 Bio-accumulative potential: for fish: BCF = 2.1-6.4 at initial concentration 500 µg DMBZA/l

12.4 Mobility in soil: **May enter the environment from waste water.**

Stability: **Poorly soluble in water.**

Adsorption: log K_{oc} (20 °C) = 2.457

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12.5 Results of PBT and vPvB assessment: **not included**

12.6 Other adverse effects: **not specified**

SECTION 13: Disposal considerations

13.1 Waste treatment methods: **Incineration in a hazardous waste incineration plant in accordance with Act on Wastes under the catalogue numbers 160305, 160508 or 150202.**

Disposal of contaminated packaging: **Rinse with water, dispose the caught water and packaging in accordance with valid regulations.**

SECTION 14: Transport information

Land transport (ADR/RID)

Marine transport (IMPG)

Air transport (ICAO/IA TA)

14.1 UN number:	2619
14.2 UN proper shipping name:	Benzylidimethylamine
14.3 Transport hazard class(es):	8 (3), CF1
Hazard identification number (Kemler code):	83
14.4 Packing group:	II
14.5 Environmental hazards:	YES
Marine pollutant:	YES
14.6 Special precautions for user:	Not included in "Segregation Groups"
EMS:	F-E, S-C
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	irrelevant

SECTION 15: Regulatory information

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

15.1.1 EU regulations concerning safety, health and environment/specific legislation concerning substances or mixtures, as amended:

- Regulation (EC) No 1272/2008 of 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;
- 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;
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives;

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- Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.

15.1.2 Regulations valid in CR and concerning safety, health and environment/specific legislation concerning substances or mixtures, as amended:

- Act 350/2011 Coll., on chemical substances and chemical mixtures and on amendments to some acts;
- [Decree of Ministry of Environment no. 93/2016 Coll. laying down Waste Catalogue](#);
- Governmental decree no. 361/2007 Coll., laying down occupational health and safety conditions.

15.2 Chemical safety assessment

Chemical safety assessment is part of the chemical safety report for dimethylbenzylamine (BDMA) - the overview of risk management measures is provided in Annex 1.

Detailed information on exposure scenarios will be contained in Annex 2 available at the customer's request.

SECTION 16: Other information

16.1 This safety data sheet supersedes all previous versions.

16.2 List of abbreviations

Carc.:	Carcinogenicity
CAS:	Chemical Abstracts Service
CLP:	Classification, labelling, packaging regulation
CSR:	Chemical safety report
DNEL:	Derived no-effect level
ES:	Exposure scenario
EC:	European Commission
EC ₅₀ :	Median effective concentration EC ₅₀ – used in toxicity tests. Median effective concentration EC ₅₀ is the concentration of substance that causes 50 % mortality or 50 % decrease of growth or growth rate with reference to the control sample.
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
Irrit.:	Irritant
LC ₅₀ :	Lethal concentration, 50 % (lethal concentration) is used for toxicity tests
LD ₅₀ :	Absolute lethal dose that kills 50 % of members of population
LOAEC:	Lowest observed adverse effect concentration
NOAEC:	No observed adverse effect concentration
NOEC:	No observed effect concentration
OECD:	Organisation for Economic Cooperation and Development
PBT:	Persistent, bio-accumulative and toxic
PNEC:	Predicted no-effect concentration
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
Sens.:	Sensitivity
STOT:	Specific target organs toxicity
STOT SE:	Specific target organs toxicity - single exposure
STOT RE:	Specific target organs toxicity - repeated exposure
STP:	Sewage treatment plant
SU:	Sector of use
Tox.:	Toxicity
vPvB:	Very persistent and very bio-accumulative

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N,N-DIMETHYLBENZYLAMINE

16.3 List of mentioned phrases

H phrases:

H226 Flammable liquid and vapour.

H302+H312 Harmful if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

H411 Toxic to aquatic life with long lasting effects.

P phrases:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

16.4. Sources used

**Material safety data list of N,N-dimethylbenzylamine, BC MCHZ, 9th edition issued in 06/2016
Risk Assessment for ES5 from 02/2015**

16.5 History of revisions

Issue	Date	Change
1.0	30 November 2010	Preparation of the safety data sheet according to Regulation (EC) No 1907/2006 of the European Parliament and of the Council
2.0	10 October 2011	Additional information from the registration dossier. Overall revision of all sections of the safety data sheet according to Regulation (EC) No 453/2010 of the European Parliament and of the Council
3.0	1 December 2012	Update of classification (use of a combination of H-phrases), update of the regulations valid in the Czech Republic, and revisions according to Regulation (EC) No 286/2011 of the European Parliament and of the Council
4.0	18 June 2013	Complementation of the registration number and of the overview of exposure scenarios.
5.0	29 July 2013	Update of classification (H412) and update of Section 14.
6.0	01 February 2014	Additional information from the updated registration dossier.
7.0	23 March 2015	Update of Section 11 and Annex No. 1
8.0	01 June 2015	Modification of Section 2 (deletion of classification under DSD) and other sections according to regulations 2015/830/EU
9.0	18 May 2016	Update of classification (H411) and update of Section 14.
10.0	13 February 2017	Revision according to Commission Regulation (EU) no. 918/2016

SAFETY DATA SHEET

N,N-DIMETHYLBENZYLAMINE

Prepared by: Ing. Zuzana Svobodová – IT & Quality, ecology, health and safety department

Approved by: Ing. Stanislav Pekara, MBA – Head of IT & Quality, ecology, health and safety department

Version: English
Date: 13.02.2017
Safety Data Sheet
N,N-Dimethylbenzylamine

www.borsodchem-cz.com

The mentioned data reflect the present state of knowledge and experience and they are in compliance with valid legislation of the Czech Republic. The client is responsible for observing valid national legislation in the place of use.

Manufactured by:

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Chemická 2039/1
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Fax: +420 596 626 258

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Annex No. 1

OVERVIEW OF EXPOSURE SCENARIOS

Number of exposure scenario	Volume (t/r)	Production	Identified use			Stage of life cycle		Areas of application (SU)	Chemical products (PC) items (AC)	Processes (PROC)	Release to the environment (ERC)
			Formulation	End use	Consumers	Period of use (for items)	Stage of waste				
ES1 Intermediate Use under SCC	N/A							SU3	PC19	PROC1, 3, 8b, 9	ERC6a
ES2 Formulation+ Repacking	N/A		X					SU3	PC1, 9a, 32	PROC3, 4, 5, 8b, 9, 15	ERC2, 3
ES3 Industrial Use (Foam production)	N/A			X				SU3	PC1, 9a, 32	PROC1, 3, 4, 8b, 15	ERC5, 6a, 6b
ES4 Consumer Use	N/A				X	X		SU21	AC2, 5	N/A	ERC11a
ES5 Industrial use (catalyst for reaction)	N/A		X					SU3	PC0	PROC2,9	ERC4

N/A – Not available (confidential)

SUMMARY OF RISK MANAGEMENT MEASURES

USE (short description, Product categories and PROCs and ERCs used)	Conditions for safe use (RMM)
Intermediate Use – Use 1 (ES1)	
Intermediate Use in industrial setting under strictly controlled conditions according to Art. 18 (100% BDMA) PROC1, PROC3, PROC8b, PROC9 ERC6a	Not applicable; according to Article 18 of the REACH regulation, considerations on human exposure and risk in uses as isolated intermediates are not required. Not applicable; according to Article 18 of the REACH regulation, considerations on environmental exposure and risk in uses as isolated intermediates are not required.

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USE (short description, Product categories and PROCs and ERCs used)	Conditions for safe use (RMM)
Formulation and Repacking – Use 2 (ES2)	
Formulation and Repacking in industrial settings (100% BDMA) PROC3, PROC4, PROC5, PROC8b, PROC 9, PROC 15 ERC2, ERC3	<p>All personnel are trained. For working up to 4 hours, wearing of protective clothing/personal protective equipment is mandatory. Local exhaust ventilation (LEV, 98 % efficiency) in all industrial formulation steps is required. Gloves (90 % efficiency) and goggles are required due to corrosive properties of the substance.</p> <p>Waste water i.e. from cleaning etc. is collected and disposed of by a professional waste water disposer. Finally it will be incinerated at a devoted incineration plant. No sludge or discharge effluent is disposed to soil or river. Waste gases are precleared (90 % efficiency).</p>
Industrial Use (foaming production) – Use 3 (ES3)	
Industrial use in foaming production (3 % BDMA) PROC1, PROC3, PROC4, PROC8b, PROC15 ERC5, ERC6a, ERC6b	<p>All personnel are trained. For working up to 4 hours, wearing of protective clothing/personal protective equipment is mandatory. Local exhaust ventilation (LEV, 98 % efficiency) in all industrial formulation steps is required. Gloves (90 % efficiency) and goggles are required due to corrosive properties of the substance.</p> <p>Waste water i.e. from cleaning etc. is collected and disposed of by a professional waste water disposer. Finally it will be incinerated at a devoted incineration plant. No sludge or discharge effluent is disposed to soil or river. Waste gases are precleared (90 % efficiency).</p>
Consumer Use – Use 4 (ES4)	
Consumer Use and service life of foaming plastics (1.5 % BDMA) AC2, AC5 ERC11a	<p>No specific RMMs identified.</p> <p>No specific RMMs identified.</p>
Industrial Use (catalyst for reaction) – Use 5 (ES5)	
As the homogeneous catalyst to the reaction in closed process (100% BDMA) PROC2, PROC9 ERC4	<p>All personnel are trained. For working < 1 hour/day, wearing of protective clothing/personal protective equipment is mandatory. Local exhaust ventilation (LEV, 90 % efficiency) in all industrial formulation steps is required. Gloves (80 % efficiency) and goggles are required due to corrosive properties of the substance.</p> <p>Waste water i.e. from cleaning etc. is collected and disposed of by a professional waste water disposer. Finally it will be incinerated at a devoted incineration plant. No sludge or discharge effluent is disposed to soil or river. Waste gases do not arise.</p>

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N,N-DIMETHYLBENZYLAMINE

List of abbreviations:

AC2	Machinery, mechanical appliances, electrical/electronic articles
AC5	Fabrics, textiles and apparel
ERC2	Formulation of preparations/mixtures
ERC3	Formulation in materials
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
ERC6a	Industrial use resulting in manufacture of another substance (use of intermediates)
ERC6b	Industrial use of reactive processing aids
ERC11a	Wide dispersive indoor use of long-life articles and materials with low release
LEV	Local exhaust ventilation
PC0	Other
PC1	Adhesives, sealants
PC9a	Coatings and paints, thinners, paint removers
PC19	Intermediate
PC32	Polymer preparations and compounds
PROC1	Use in closed process, no likelihood of exposure
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact)
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC15	Use as laboratory reagent
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites
SU12	Manufacture of plastics products, including compounding and conversion
SU21	Consumer uses: Private households (= general public = consumers)