according to UK REACH Regulation

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	2-Dimethylaming		
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SECTION 1: Identification of	the substance/mixture and of the	company/undertaking	
1.1. Product identifier			
2-Dimethylaminoethanol			
Further trade names			
synonym: Dimethylethano	lamin, N,N-Dimethylethanolamin, Norc	nolin, DMAE, Deanol	
CAS No:	108-01-0		
Index No:	603-047-00-0		
EC No:	203-542-8		
1.2. Relevant identified uses of t	he substance or mixture and uses ad	<u>vised against</u>	
1.3. Details of the supplier of the	safety data sheet		
Company name:	ABX advanced biochemical con	pounds	
	Biomedizinische Forschungsrea	genzien GmbH	
Street:	Heinrich-Gläser-Straße 10-14		
Place:	01454 Radeberg		
Telephone:	+49 3528 4041 60	Telefax: +49 3	528 4041 65
e-mail:	info@abx.de		
Contact person:	Dr. Christoph Meyer	Telephone: +49 3	528 4041 8732
e-mail:	meyer@abx.de		
Internet:	http://www.abx.de		
1.4. Emergency telephone	+49 3528 4041 60		

<u>number:</u>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Acute Tox. 4; H302 Skin Corr. 1B; H314

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation Signal word:	Danger
Pictograms:	
Hazard statements	
H226	Flammable liquid and vapour.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
Precautionary statemen	Its
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.

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P240	Ground and bond container and receiving equipment.	
P241	Use explosion-proof electrical/ventilating/lighting equipment.	
P242	Use non-sparking tools.	
P243	Take action to prevent static discharges.	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P270	Do not eat, drink or smoke when using this product.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.	
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
P362+P364	Take off contaminated clothing and wash it before reuse.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P310	Immediately call a POISON CENTER/doctor.	
P312	Call a POISON CENTER/doctor if you feel unwell.	
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 CENTER/doctor.	
P233	Keep container tightly closed.	
P403+P235	Store in a well-ventilated place. Keep cool.	
P405	Store locked up.	

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula:	108-01-0
Molecular weight:	C4H11NO

Hazardous components

CAS No	Chemical name			Quantity	
	EC No Index No REACH No				
	Classification (GB CLP Regulation	n)			
108-01-0	2-dimethylaminoethanol; N,N-dir	nethylethanolamine		100 %	
	203-542-8	603-047-00-0	03-047-00-0		
	Flam. Liq. 3, Acute Tox. 4, Acute H314	Tox. 4, Acute Tox. 4, Skin Corr. 1B; H	226 H332 H312 H302		

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. L	imits, M-factors and ATE	
108-01-0	203-542-8	2-dimethylaminoethanol; N,N-dimethylethanolamine	100 %
		= 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = al: LD50 = 2000 mg/kg_STOT SE 3; H335: >= 5 - 100	

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

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After contact with skin

After contact with skin, wash immediately with: Water. Change contaminated clothing. Medical treatment necessary.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water. Carbon dioxide (CO2). Foam. Extinguishing powder.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Explosion hazard.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Keep container in a well-ventilated place.

Hints on joint storage

Do not store together with: Material, rich in oxygen, oxidizing.

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Further information on storage conditions

Maximum storage temperature: +30 °C

Protect against: Light.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
108-01-0	2-Dimethylaminoethanol	2	7.4		TWA (8 h)	WEL
		6	22		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Colour:	liquid light yellow
Changes in the physical state Boiling point or initial boiling point and boiling range:	134 - 136 °C
Flash point:	39 °C
pH-Value (at 20 °C):	10,5 - 11
Water solubility: (at 20 °C)	easily soluble.
Density (at 20 °C):	0,886 g/cm³

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

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CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
108-01-0	2-dimethylaminoethanol; N,N-dimethylethanolamine							
	oral	LD50 mg/kg	2000	Rat	GESTIS			
	dermal	LD50 mg/kg	1220	Rabbit	GESTIS			
	inhalation vapour	ATE	11 mg/l					
	inhalation dust/mist	ATE	1,5 mg/l					

Irritation and corrosivity

Irritating to eyes.

SECTION 12: Ecological information

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 2051
14.2. UN proper shipping name:	2-Dimethylaminoethanol
14.3. Transport hazard class(es):	8 (3)
14.4. Packing group:	II
Hazard label:	3, 8
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 2051
14.2. UN proper shipping name:	2-Dimethylaminoethanol
14.3. Transport hazard class(es):	8 (3)
14.4. Packing group:	II
Hazard label:	3, 8
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 2051
14.2. UN proper shipping name:	2-Dimethylaminoethanol
14.3. Transport hazard class(es):	8 (3)
14.4. Packing group:	II
Hazard label:	3, 8
Air transport (ICAO-TI/IATA-DGR)	

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14.1. UN number or ID number:	UN 2051	
14.2. UN proper shipping name:	2-Dimethylaminoethanol	
<u>14.3. Transport hazard class(es):</u>	8 (3)	
14.4. Packing group:	II	
Hazard label:	3, 8	
ECTION 15: Regulatory information	ations/legislation specific for the substance or mixture	
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ECTION 15: Regulatory information 5.1. Safety, health and environmental regu EU regulatory information Restrictions on use (REACH, annex XVII):		
ECTION 15: Regulatory information 5.1. Safety, health and environmental regu EU regulatory information Restrictions on use (REACH, annex XVII): Entry 3, Entry 40	ations/legislation specific for the substance or mixture	

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.