

according to EC directive 1907/2006

Update : 26.06.2013

Version: 3.0 Date : 26.06.2013

TEGOAMIN DMCHA

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name : TEGOAMIN DMCHA

REACH Registration

Number

: 01-2119533030-60

Relevant identified uses of the substance or mixture

: Industrial Use

Details of the supplier of the : Evonik Industries AG

safety data sheet

Consumer Specialties
Goldschmidtstr. 100

45127 Essen

Telephone: +4920117301 Telefax: +492011733000

Information provided by : Product Safety Consumer Specialties

Telephone: (+49) (0) 201/ 173 2770 Telefax: (+49) (0) 201/ 173 1994

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Telefax: (+49) (0) 201/173 1854

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to the Regulation (EC) No 1272/2008 (GHS)

Flammable liquids, Category 3, H226
Acute toxicity, Category 3, Skin, H311
Acute toxicity, Category 3, Inhalation, H331
Acute toxicity, Category 3, Oral, H301
Skin corrosion, Category 1B, H314
Chronic aquatic toxicity, Category 2, H411

Classification according to directives 1999/45/EC and 67/548/EEC

Flammable.

Causes burns.

Toxic by inhalation and in contact with skin.

Harmful if swallowed.

Label elements according to Regulation (EC) No 1272/2008 (GHS)

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Symbol(s) :









Signal Word : Danger

Hazard Statements : H226: Flammable liquid and vapour.

H311: Toxic in contact with skin.

H331: Toxic if inhaled. H301: Toxic if swallowed.

H314: Causes severe skin burns and eye damage. H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements : P210: Keep away from heat/sparks/open flames/hot surfaces.

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): Remove/Take off

immediately all contaminated clothing. Rinse skin with

water/shower.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minuts. Remove contact lenses, if present and easy

to do. Continue rinsing.

P310: Immediately call a POISON CENTER or

doctor/physician.

P403 + P235: Store in a well-ventilated place. Keep cool.

Hazardous component(s)

for labelling

: Cyclohexanamine, N,N-dimethyl, EINECS-No.: 202-715-5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization : Cyclo Aliphatic Amine

CAS-No. : 98-94-2

EINECS-No. : 202-715-5

4. FIRST AID MEASURES

Description of first aid measures

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General advice : Remove soiled or soaked clothing immediately

After inhalation : Ensure supply of fresh air.

Summon a doctor immediately.

After contact with skin : Immediate medical treatment necessary, as untreated burns

can result in slow-healing wounds

After contact with eyes : In case of contact with eyes rinse thoroughly with plenty of

water and seek medical advice

After ingestion : Rinse out mouth and give plenty of water to drink.

Summon a doctor immediately.

The most important acute and delayed symptoms and effects

Symptoms : Causes burns.

Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing

media

: foam, carbon dioxide, dry powder, water spray.

Unsuitable extinguishing

media

: not applicable

Special hazards arising from the substance or

mixture

: 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

Advice for fire-fighters : Do not inhale explosion and/or combustion gases

Use self-contained breathing apparatus

Further information : Collect contaminated firefighting water separately, must not be

discharged into the drains.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Use personal protective equipment.

Environmental precautions Do not discharge into the subsoil/soil.

Do not allow to enter drains or waterways

Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr,

universal binder)

Dispose of absorbed material in accordance with the

regulations.

Reference to other sections For further information on exposure monitoring and disposal

see sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide good ventilation of working area (local exhaust Advice on safe handling

ventilation if necessary).

General protective

measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures Remove soiled or soaked clothing immediately.

> Wash hands before breaks and after work. Do not eat, drink or smoke when working.

Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion Keep away from sources of ignition - no smoking

Take precautionary measures against electrostatic loading.

Vapours may form explosive mixtures with air Cool endangered containers by water spray

Do not store with acids. Advice on common storage

Further information Keep container tightly closed and dry in a cool, well-ventilated

place

: 3 German storage class

Storage Class (Spain): : MIE APQ-1 (as per "REAL DECRETO 379/2001")

Specific end use(s) : No further recommendations.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

DNEL/DMEL values : Area of application: worker

Exposure pathway: inhalation

Effect on health: systemic and local effects

Dose: 35 mg/m3 Long-term exposure

PNEC values Area of application: freshwater

Dose: 0,002 mg/l

Area of application: marine water

Dose: 0,0002 mg/l

Area of application: intermittent release

Dose: 0,02 mg/l

Area of application: Fresh water sediment

Dose: 0,0211 mg/kg

Area of application: marine water sediment

Dose: 0,00211 mg/kg

Area of application: soil Dose: 0,00305 mg/kg

Area of application: Wastewater treatment plant

Dose: 20,6 mg/l

Personal protective equipment / exposure controls

Respiratory protection : in case of formation of vapours/aerosols:

Short term: filter apparatus, filter K

Hand protection gloves made of nitril (NBR)

Minimum break-through time of the glove:

> 480 min

Glove strength: 0,4 mm

protective gloves made of fluorinated rubber (FKM, e.g. Viton)

Minimum break-through time of the glove:

> 480 min

Glove strength: 0,7 mm

Eye protection Protective goggles; wear additional face protection if risk is

increased.



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Skin and body protection : protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

Colour : colourless to yellowish

Odour : amine-like

Smell threshold : not measured

Melting point : < -77 °C

Source: Literaturwert

Boiling point : 162,3 °C

at 1.013 hPa

Flash point : 41 °C

Method: DIN EN 22719 (DIN 51758)

Evaporation rate : not measured

Ignition temperature : 200 °C

Method: DIN 51794

Autoignition temperature : not measured

Thermal decomposition : < 340 °C

Lower explosion limit : 3,6 %(V)

Upper explosion limit : 19 %(V)

Vapour pressure : 3,17 hPa

at 21,5 °C

Method: OECD 104

Density : 0,85 g/cm3

at 20 °C

Relative vapour density : not measured

Water solubility : 13,4 g/l

at 20 °C

pH : 12

at 5 g/l at 20 °C

Partition coefficient (n-

octanol/water)

not measured

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Viscosity, dynamic : 1,16 mPa.s

at 25 °C

Explosive properties : Not to be expected in view of the structure

Oxidizing properties : Not to be expected in view of the structure

Metal corrosion : not measured

10. STABILITY AND REACTIVITY

Reactivity : see section "Possibility of hazardous reactions"

Chemical stability : The product is stable under normal conditions.

Possibility of hazardous

reactions

Strong exothermic reaction with acids.

Conditions to avoid : Open flames, sparks or input of much heat

Incompatible materials : acids

Hazardous decomposition

products

Hazardous decomposition products:

Nitrous gases

Nitrous oxides (NOx)

Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50

Species: rat Dose: 272 mg/kg

Acute inhalation toxicity : LC50

Species: rat

Dose: > 1,7 - 5,8 mg/l Exposure time: 6 h Test atmosphere: Vapour

Acute dermal toxicity : LD50

Species: rat Dose: 380 mg/kg Method: OECD 402

Skin irritation : Species: rabbit

corrosive

Eye irritation : corrosive

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Sensitization Species: mouse

Classification: Did not cause sensitization on laboratory

animals.

non-sensitizing

Method: OECD 429 (LLNA-Test)

Risk of aspiration toxicity No aspiration toxicity classification

Repeated dose toxicity no data available

Judgement STOT - single

exposition

no data available

Judgement STOT -

repeated exposure

: no data available

CMR assessment

Carcinogenicity no data available

Mutagenicity no data available

Teratogenicity no data available

Toxicity to reproduction no data available

Remarks Causes burns

With nitrites or nitrous acid nitrosamines may be formed under

special conditions. These have been proven to be carcinogenic

in animal experiments. Toxic by inhalation. toxic in contact with skin. Harmful if swallowed.

REGULATION (EC) No. 1272/2008

Toxic if swallowed. Toxic in contact with skin.

Toxic if inhaled.

Causes severe skin burns and eye damage.

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12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biological degradability : 90 - 100 %

Testing period: 18 d readily degradable Method: OECD 301 A

Ecotoxicity effects

Toxicity to fish : LC50

Species: Leuciscus idus Dose: 31,58 mg/l Exposure time: 96 h Method: DIN 38412 T.15

The details of the toxic effect relate to the nominal

concentration.

After neutralization no more toxicity can be observed.

LC50

Species: Oncorhynchus mykiss

Dose: 28 mg/l Exposure time: 96 h

Method: OECD 203 / ISO 7346 / EEC 84/449/V, C1

Toxicity to bacteria : EC10

Species: Pseudomonas putida

Dose: 137 mg/l Exposure time: 17 h Method: DIN 38412 T.8

The details of the toxic effect relate to the nominal

concentration.

Toxicity to daphniae : EC50

Species: Daphnia magna

Dose: 75 mg/l Exposure time: 48 h Method: OECD 202

The details of the toxic effect relate to the nominal

concentration.

Toxicity to algae : EC50

Species: Scenedesmus subspicatus

Dose: > 2 mg/l Exposure time: 72 h Method: DIN 38412 T.9

The details of the toxic effect relate to the nominal

concentration.



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EC10

Species: Scenedesmus subspicatus

Dose: 0,0784 mg/l Exposure time: 72 h Method: DIN 38412 T.9

The details of the toxic effect relate to the nominal

concentration.

Further ecological information

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

The product is considered to be a weak water pollutant

(German law).

13. DISPOSAL CONSIDERATIONS

Product 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

Land transport

ADR:

Class 8 Packaging group Ш

Orange plate Hazard no.: 83

Substance number: 2264

Description of the goods

Hazard release

2264 N,N-DIMETHYLCYCLOHEXYLAMINE

RID:

Label

Class 8 Packaging group Ш

Orange plate Hazard no.: 83

Substance number: 2264

Description of the goods

2264 N,N-DIMETHYLCYCLOHEXYLAMINE

Hazard release

8 corrosive substance, 3 danger of fire (flammable liquid)

8 corrosive substance, 3 danger of fire (flammable liquid)

Inland navigation transport

ADNR:

Label

Class 8 CF1 Item

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Description of the goods

Hazard release Label

8 corrosive

Sea transport

IMDG:

Class 8 Packaging group Ш 2264 UN-No **EmS** F-E, S-C

Correct technical name

N,N-DIMETHYLCYCLOHEXYLAMINE

2264 N,N-DIMETHYLCYCLOHEXYLAMINE

Hazard release

Label

8 corrosive, 3 flammable liquid

Other information Stowage category A - Clear of living quarters, "Separated from"

acids - Seg.Grp.: Alkalis

Air transport

ICAO/IATA:

8 Class Packaging group Ш UN-No 2264

Correct technical name

N,N-Dimethylcyclohexylamine

Hazard release

Label 8 Corrosive, 3 Flammable Liquid

15. REGULATORY INFORMATION

National legislation / regulations

Comply with national and local legal regulations.

Germany

TA Luft (Germany) : Class: Paragraph 5.2.5 (no class)

Observe local authority regulations corresponding to the german incident regulation (StörfallV).

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Water contaminating class

1 (Classification acc. to German law)

KBwS-No.: 1.144

Risk classification

according to BetrSichV

(Germany)

: Flammable.

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Other regulations Special local regulations must be adhered to when using

> products containing irritating or corrosive substances. BG Info Sheet M 050 "Activities Involving Hazardous

Substances"

Special local regulations must be adhered if using organic

solvents

Precautions to be observed for storage of flammable / readily

flammable products: TRGS 510 "Storage of Hazardous

Substances in Movable Containers".

Chemical safety

assessment

Version:

No chemical safety assessment was carried out for this

product.

16. OTHER INFORMATION

3.0

Comply with national laws regulating employee instruction.

Glossary

European Agreement concerning the International Carriage of Dangerous Goods by Road ADR **ADNR** European agreement concerning the international carriage of dangerous goods by inland

waterways (ADN)

BCF Bioconcentration factor

BetrSchV German Ordinance on Industrial Safety and Health carcinogenic-mutagenic-toxic for reproduction CMR

Derived no effect level DNEL Good Laboratory Practice GLP

IATA International Air Transport Association **ICAO** International Civil Aviation Organization **IMDG** International Maritime Dangerous Goods LOAEL Lowest observed adverse effect level Lowest observed effect level LOEL NOAEI No observed adverse effect level

OECD Organisation for Economic Cooperation and Development

PBT Persistent, bioaccumulative, toxic **PNEC** Predicted no effect concentration

Convention concerning International Carriage by Rail RID

TA **Technical Instructions**

TRGS Technical Rules for Hazardous Substances German chemical industry association VCI vPvB very persistent, very bioaccumulative

VOC volatile organic compounds

VwVwS German Administrative Regulation on the Classification of Substances Hazardous to Waters

into Water Hazard Classes

WGK Water Hazard Class

EC50 half maximal effective concentration STOT Specific Target Organ Toxicity OEL Occupational Exposure Limit PEC Predicted effect concentration NOEC no observed effect concentration

NOEL no observed effect level

International Organization For Standardization ISO

DIN German Institute for Standardization

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This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

Changes compared to the previous version are marked before the section number!

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