

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010



Article No.: 1473
Print date: 03.07.2015
Version: 2.0

-moglice- 1473 hardener
Revision date: 19.05.2015
Issue date: 19.05.2015

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

1.1. Product identifiers

Article No. (manufacturer/supplier) 1473
Identification of the substance or mixture -moglice- 1473 hardener

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

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

DIAMANT Metallplastic GmbH
Hontzlarstr. 12-14 Telephone: +49(0)2166-98360
41238 Mönchengladbach Telefax: +49(0)2166-83025

Dept. responsible for information:

Lab
E-mail (competent person) info@diamant-polymer.de

1.4. Emergency telephone number

Emergency telephone number +49(0)2166-98360
Only available during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Skin Corr. 1B / H314	skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic life.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is classified as hazardous according to 1999/45/EC.

Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
C; R34	Corrosive	Causes burns.
R43		May cause sensitization by skin contact.
N; R50-53	Dangerous for the environment	Very toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container to industrial incineration plant.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

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P233 Keep container tightly closed.
 P391 Collect spillage.
 P273 Avoid release to the environment.

contains:
 3,6,9,12-tetra-azatetradecamethylenediamine

Supplemental Hazard information (EU)
 not applicable

Labelling (67/548/EEC or 1999/45/EC)



C Corrosive



N Dangerous for the environment

Hazard statements

20/21 Harmful by inhalation and in contact with skin.
 34 Causes burns.
 43 May cause sensitization by skin contact.
 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Precautionary statements

24 Avoid contact with skin.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 51 Use only in well-ventilated areas.
 61 Avoid release to the environment. Refer to special instructions/safety data sheet.

contains:
 3,6,9,12-tetra-azatetradecamethylenediamine
 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)

Special provisions concerning the labelling of certain mixtures
 not applicable

2.3. **Other hazards**

SECTION 3: Composition / information on ingredients *

3.2. **Mixtures**

Product description / chemical characterization

Description Aminhardener mixture + fillers

Hazardous ingredients

Classification according to Regulation (EC) No. 1272/2008 [CLP]

EC No. CAS No. INDEX No.	REACH No. Chemical name classification	Wt % Remark
223-775-9 4067-16-7 612-064-00-2	3,6,9,12-tetra-azatetradecamethylenediamine Skin Corr. 1B H314 / Skin Sens. 1 H317 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	25 - 50
229-962-1 6864-37-5 612-110-00-1	2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) Acute Tox. 3 H331 / Acute Tox. 3 H311 / Acute Tox. 4 H302 / Skin Corr. 1A H314 / Aquatic Chronic 2 H411	2,5 - 5

Classification according to Directive 67/548/EEC or 1999/45/EC

EC No. CAS No. INDEX No.	REACH No. Chemical name classification	Wt % Remark
223-775-9 4067-16-7 612-064-00-2	3,6,9,12-tetra-azatetradecamethylenediamine C; R34 / R43 / N; R50-53	25 - 50

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229-962-1
6864-37-5 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine) 2,5 - 5
612-110-00-1 T; R23/24 / Xn; R22 / C; R35 / N; R51-53

Additional information

Full text of R-phrases: see section 16.

Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Use appropriate container to avoid environmental contamination. Fouled surfaces must be immediately cleaned with suitable solvents Useable as such (flammable): water 45 vol.% ethanol or i-propanol 50 vol. % ammonia solution (density= 0.88) 5 vol.% Alternative (non-flammable): sodium carbonate 5 vol.% water 95 vol.% Take up spilled residuals with the same agent and leave them for a few days in unclosed containers until there is no further reaction. Then, close the containers and dispose of them in accordance with the regulations for waste removal (refer to Chapter 13). If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

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6.4. **Reference to other sections**

Observe protective provisions (see chapter 7 and 8).

SECTION 7: Handling and storage

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation. Examination of lung function should be carried out on a regular basis on persons spraying this product.

7.1. **Precautions for safe handling**

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations. Be careful when opening used containers (excess pressure). Precautionary measures should be taken in order to reduce strain from humidity or water: CO₂ is formed which may produce excess pressure in closed containers .

Technical measures

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

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

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 20 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. **Specific end use(s)**

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation. Examination of lung function should be carried out on a regular basis on persons spraying this product.

8.1. **Control parameters**

Occupational exposure limit values:

INDEX No. not applicable / CAS No.

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: Nitrile rubber or butyl rubber

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Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

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

Appearance:

Physical state solid
Colour refer to label
Odour characteristic

Safety relevant basis data	Unit	Method	Remark
Flash point:	118 °C	DIN 53213-1 (08/2002: replaced by EN ISO 1523)	
Ignition temperature in °C:	275 °C		
Lower explosion limit:	not applicable	Vol-%	
Upper explosion limit:	not applicable	Vol-%	
Vapour pressure at 20 °C:	not applicable	mbar	
Density at 20 °C:	1,01	g/cm ³	
Water solubility (g/L):	insoluble		
pH at 20 °C:	-		
Viscosity at 20 °C:	900	mPa·s	
Solvent separation test (%):	< 3	%	ADR/RID
Solid content (%):	100,00	Wt %	
solvent content:			
Organic solvents:	0	Wt %	
Water:	0	Wt %	

9.2. **Other information**

SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

No data on preparation itself available.

11.1. **Information on toxicological effects**

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Acute toxicity

Toxicological data are not available.

Irritant and corrosive effects

Toxicological data are not available.

Sensitisation

Toxicological data are not available.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

Toxicological data are not available.

Practical experience/human evidence

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

SECTION 12: Ecological information

overall evaluation

There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**

Toxicological data are not available.

12.2. **Persistence and degradability**

Toxicological data are not available.

12.3. **Bioaccumulative potential**

Toxicological data are not available.

12.4. **Mobility in soil**

Toxicological data are not available.

12.5. **Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Other adverse effects**

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080111 waste paint and varnish containing organic solvents or other dangerous substances

packaging

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

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SECTION 14: Transport information

- 14.1. **UN number** 1760
- 14.2. **UN proper shipping name**
Land transport (ADR/RID): Corrosive liquid, n.o.s.
((3,6,9,12-tetraazatetradecan- ethylenediamine))
Sea transport (IMDG): CORROSIVE LIQUID, N.O.S.
((3,6,9,12-tetraazatetradecan- ethylenediamine))
Air transport (ICAO-TI / IATA-DGR): Corrosive liquid, n.o.s.
((3,6,9,12-tetraazatetradecan- ethylenediamine))
- 14.3. **Transport hazard class(es)** 8
- 14.4. **Packing group** III
- 14.5. **Environmental hazards**
Land transport (ADR/RID) UMWELTGEFÄHRDEND
Marine pollutant p
- 14.6. **Special precautions for user**
Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8
- Additional information**
- Land transport (ADR/RID)**
tunnel restriction code E
- Sea transport (IMDG)**
EmS-No. F-A, S-B
- 14.7. **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
not applicable

SECTION 15: Regulatory information

- 15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- EU legislation**
- Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**
VOC-value (in g/L) ISO 11890-2: 0
VOC-value (in g/L) ASTM D 2369: 0
- National regulations**
- Restrictions of occupation**
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
- Other regulations, restrictions and prohibition regulations**
- Substance/product listed in the following inventories:**
Listet in TOXIC SUBSTANCES CONTROL ACT (TSCA)
- 15.2. **Chemical Safety Assessment**
Chemical safety assessments for substances in this preparation were not carried out.

SECTION 16: Other information

Relevant R-and H-phrases (Number and full text):

Skin Corr. 1B / H314	skin corrosion/irritation	Causes severe skin burns and eye damage.
Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic life.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.

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Acute Tox. 3 / H331	Acute toxicity (inhalative)	Toxic if inhaled.
Acute Tox. 3 / H311	Acute toxicity (dermal)	Toxic in contact with skin.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Skin Corr. 1A / H314	skin corrosion/irritation	Causes severe skin burns and eye damage.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
C; R34	Corrosive	Causes burns.
R43		May cause sensitization by skin contact.
N; R50-53	Dangerous for the environment	Very toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.
T; R23/24	Toxic	Toxic by inhalation and in contact with skin.
Xn; R22	Harmful	Harmful if swallowed.
C; R35	Corrosive	Causes severe burns.
N; R51-53	Dangerous for the environment	Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Additional information

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

* Data changed compared with the previous version