

Safety Data Sheet according to regulation (CE) No.1272/2008

CATALIZADOR AQUAMAX

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****CATALIZADOR AQUAMAX****1.2 Relevant identified uses of the substance or mixture and uses advised against****Use:**

Hardener for coating materials or adhesives for industrial and trade applications

1.3 Details of the supplier of the safety data sheet

Company : PINTURAS KILNHER
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SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute toxicity, Inhalative, Category 4 (H332)

Sensitization of the skin, Category 1 (H317)

Specific target organ toxicity (single exposure), Category 3 (H335)

Chronically hazardous to the aquatic environment, Category 3 (H412)

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

Harmful by inhalation.

May cause sensitization by skin contact.

Irritating to respiratory system.

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

2.2 Label elements**Regulation (EC) No 1272/2008**

Warning

Hazardous components which must be listed on the label

hydrophilic aliphatic polyisocyanate

Hazard statements:

H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

Supplementary hazardous characteristics and labeling elements:

EUH204 Contains isocyanates. May produce an allergic reaction.

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

Labelling as required by the Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4), in accordance with EC Directives:

Xn Harmful

Contains:

hydrophilic aliphatic polyisocyanate
Contains isocyanates. See information supplied by the manufacturer.

R-phrase(s)

R20 Harmful by inhalation.
R37 Irritating to respiratory system.
R43 May cause sensitization by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S24 Avoid contact with skin.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

Type of product: Mixture

3.2 Mixtures**No Hazardous components**

Dipropylene glycol dimethyl ether : Concentration [wt.-%]: ca. 25

Hazardous components

Hydrophilic aliphatic polyisocyanate

Concentration [wt.-%]: ca. 75

CAS-No.: 160994-68-3

Classification (1272/2008/CE): Acute Tox. 4 Inhalative H332 Skin Sens. 1B H317 STOT SE 3 H335

Aquatic Chronic 3 H412

Classification (67/548/EEC): Xn R20 Xi R37 R43 R52/53

This contains:

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Hexamethylene-1,6-diisocyanate

Concentration [wt.-%]: < 0.1

Index-No.: 615-011-00-1

REACH Registration Number: 01-2119457571-37-0000

CAS-No.: 822-06-0

Classification (1272/2008/CE): Acute Tox. 4 Oral H302 Acute Tox. 1 Inhalative H330 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334 Skin Sens. 1 H317 STOT SE 3 H335

Specific threshold concentration (GHS):

Resp. Sens. 1 H334 >= 0.5 %

Skin Sens. 1 H317 >= 0.5 %

Classification (67/548/EEC): T R23 Xi R36/37/38 R42/43

Specific threshold concentration

Xn R20, R42/43 0.5 - < 2 %

T R23, R42/43 2 - < 20 %

T R23, R36/37/38, R42/43 >= 20 %

The substances mentioned above are impurities according to article 3(1) of REACH-Regulation (EC) No 1907/2006. Exposure scenarios are not required for these substances.

Candidate List of Substances of Very High Concern for Authorisation

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Take off all contaminated clothing immediately.

If inhaled: Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required.

In case of skin contact: In case of skin contact wash affected areas thoroughly with soap and plenty of water. Consult a doctor in the event of a skin reaction.

In case of eye contact: Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist.

If swallowed: DO NOT induce the patient to vomit, medical advice is required.

4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: Basic first aid, decontamination, symptomatic treatment.

4.3 Indication of any immediate medical attention and special treatment needed

Therapeutic measures: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), Foam, extinguishing powder, in cases of larger fires, water spray should be used.

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen, isocyanate vapors and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

5.3 Advice for fire-fighters

During fire-fighting respirator with independent air-supply and airtight garment is required.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Put on protective equipment (see section 8). Keep away from sources of ignition. Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

6.2 Environment related measures

Do not allow to escape into waterways, wastewater or soil.

6.3 Methods and material for containment and cleaning up

Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO₂!). Keep damp in a safe ventilated area for several days.

6.4 Reference to other sections

For further disposal measures see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide sufficient air exchange and/or exhaust in work rooms. Exhaust ventilation necessary if product is sprayed.

The threshold limit values noted in section 8 must be monitored. In all areas where isocyanate aerosols and/or vapor concentrations are produced in elevated concentrations, exhaust ventilation must be provided in such a way that the workplace exposure limits (WEL) is not exceeded. The air should be drawn away from the personnel handling the product

The personal protective measures described in section 8 must be observed. The precautions required in the handling of solvents and isocyanates must be taken. Avoid contact with skin and eyes and the inhalation of vapor.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work and use skin-protecting ointment. Keep working clothes separately. Take off all contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Keep container dry and tightly closed in a cool and well ventilated place. Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet.

Storage class (TRGS 510) : 10: Combustible liquids

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

UK Workplace Exposure Limits (WEL), per EH40 document (Health & Safety Executive). If no UK value exists, EU exposure limits given where available.

8.1 Control parameters

No information on Exposure Limit Values necessary according to EC directive 2006/121/EG

Exposition assessment value (EBW) per TGRS 430: Polyisocyanate content (HDI oligomers and/or prepolymers) 65 %. Use an exposition assessment value of 0,5 mg/m³.

8.2 Exposure controls

Respiratory protection

Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

In case of hypersensitivity of the respiratory tract and skin (e.g. asthmatics and those who suffer from chronic bronchitis and chronic skin complaint) it is inadvisable to work with the product.

Hand protection

Suitable materials for safety gloves; EN 374:

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Recommendation: contaminated gloves should be disposed of.

Eye protection

Wear eye/face protection.

Skin and body protection

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	liquid	
Colour:	colourless, clear	
Odour:	slight inherent odour	
Odour Threshold:	not established	
pH:	not applicable	
Pour point:	< -60 °C	ISO 3016
Initial boiling point:	ca. 175 °C	DIN 53171
Flash point:	ca. 61 °C at 1,013 hPa	DIN EN ISO 2719
Evaporation rate:	not established	
Flammability (solid, gas):	not applicable	
Burning number:	not applicable	
Vapour pressure:	ca. 15 hPa at 20 °C	EG A4
	ca. 24 hPa at 50 °C	EG A4
	ca. 27 hPa at 55 °C	EG A4
Vapour density:	not established	
Density:	ca. 1.06 g/cm ³ at 20 °C	DIN 51757
Miscibility with water:	immiscible at 15 °C	
Surface tension:	not established	
Partition coefficient (n-octanol/water):	not established	

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Auto-ignition temperature:	not applicable	
Ignition temperature:	ca. 300 °C	DIN 51794
Decomposition temperature:	not established	
Viscosity, dynamic:	ca. 91 mPa.s at 20 °C	DIN 53019
Explosive properties:	not established	
Dust explosion class:	not applicable	
Oxidising properties:	not established	

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

SECTION 10: Stability and reactivity

10.1 Reactivity

This information is not available.

10.2 Chemical stability

This information is not available.

10.3 Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; reacts slowly with water forming CO₂, in closed containers risk of bursting owing to increase of pressure.

10.4 Conditions to avoid

This information is not available.

10.5 Incompatible materials

This information is not available.

10.6 Hazardous decomposition products

No hazardous decomposition products when stored and handled correctly.

SECTION 11: Toxicological information

Toxicological studies on the product are not yet available.

Please find below the data available to us:

11.1 Information on toxicological effects

Acute toxicity, oral

hydrophilic aliphatic polyisocyanate
LD50 rat: > 2,000 mg/kg
Studies of a comparable product.

Acute toxicity, dermal

No data available.

Acute toxicity, inhalation

ATEmix (inhal.): 2.31 mg/l, 4 h
Test atmosphere: dust/mist
Method: Calculation method

LC50 rat, female: 0.390 mg/l, 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Studies of a comparable product.

The substance was tested in a form (i.e. specific particle size distribution) that is different from the forms in which the substance is placed on the market and in which it can reasonably be expected to be used. Based on the "split-entry" concept and available data on particle size during end-use of the substance a modified classification for acute inhalation toxicity is justified.

Converted acute toxicity point estimate 1.5 mg/l
Test atmosphere: dust/mist
Method: Expert judgement

Assessment: Harmful if inhaled.

Primary skin irritation

hydrophilic aliphatic polyisocyanate
Species: rabbit Result: slight
irritant Classification: No skin
irritation
Method: OECD Test Guideline 404
Studies of a comparable product.

Primary mucosae irritation

hydrophilic aliphatic polyisocyanate
Species: rabbit
Result: slight irritant Classification:
No eye irritation Method: OECD
Test Guideline 405
Studies of a comparable product.

Sensitisation

hydrophilic aliphatic polyisocyanate
Skin sensitisation according to Magnusson/Kligmann (maximizing test):
Species: guinea pig
Result: positive
Classification: H317: May cause sensitization by skin contact (Sub cat. 1B)
Method: OECD Test Guideline 406
Studies of a comparable product.

Respiratory sensitization

Classification: No classification according to EC Directives 2006/121/EC or 1999/45/EC as respiratory sensitizer.

No pulmonary sensitisation observed in animal tests.

No pulmonary sensitisation potential was observed in guinea pigs after either intradermal or inhalative induction with polyisocyanate based on hexamethylene diisocyanate.

Subacute, subchronic and prolonged toxicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity/Fertility

No data available.

Reproductive toxicity/Teratogenicity

No data available.

Genotoxicity in vitro

Test type: Salmonella/microsome test (Ames test)
Result: No indication of mutagenic effects.
Method: OECD Test Guideline 471
Studies of a comparable product.

Genotoxicity in vivo

No data available.

STOT evaluation – one-time exposure

hydrophilic aliphatic polyisocyanate
May cause respiratory irritation.
Studies of a comparable product.

STOT evaluation – repeated exposure

No data available.

Aspiration toxicity

No data available.

Additional information

Special properties/effects: Over-exposure, especially when spraying coatings containing isocyanate without the necessary precautions, entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations, including concentrations below the UK Workplace Exposure Limit (WEL). Prolonged contact with the skin may cause tanning and irritant effects.

Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitization and respiratory reaction.

SECTION 12: Ecological information

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil.

Please find below the data available to us:

12.1 Toxicity

Acute Fish toxicity

hydrophilic aliphatic polyisocyanate
LC50 28.3 mg/l
Species: Danio rerio (zebra fish)
Exposure duration: 96 h
Method: OECD Test Guideline 203
Studies of a comparable product.

Acute toxicity for daphnia

hydrophilic aliphatic polyisocyanate
EC50 > 100 mg/l
Species: Daphnia magna (Water flea)
Exposure duration: 48 h
Method: OECD Test Guideline 202
Studies of a comparable product.

Acute toxicity for algae

hydrophilic aliphatic polyisocyanate
ErC50 > 100 mg/l
Species: scenedesmus subspicatus
Exposure duration: 72 h
Method: OECD Test Guideline 201

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Studies of a comparable product.

Acute bacterial toxicity

hydrophilic aliphatic polyisocyanate

EC50 > 10,000 mg/l

Species: activated sludge

Method: OECD Test Guideline 209

Studies of a comparable product.

12.2 Persistence and degradability

Biodegradability

hydrophilic aliphatic polyisocyanate

Biodegradation: 2 %, 28 d, i.e. not readily degradable

Method: OECD Test Guideline 301 F

Studies of a comparable product.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

Isocyanate reacts with water at the interface forming CO₂ and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by watersoluble solvents. Previous experience shows that polyurea is inert and non-degradable.

SECTION 13: Disposal considerations

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

13.1 Waste treatment methods

After final product withdrawal, all residues must be removed from containers (drip-free, powder-free or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. These containers can be returned for recycling to the appropriate centres set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

SECTION 14: Transport information

ADR/RID

14.1 UN number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods
14.4 Packing group	:	Not dangerous goods
14.5 Environmental hazards	:	Not dangerous goods

ADN

14.1 UN number	:	Not dangerous goods
14.2 UN proper shipping name	:	Not dangerous goods
14.3 Transport hazard class(es)	:	Not dangerous goods

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- 14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

This classification data does not apply to transportation by tanker. If required, additional information can be requested from the manufacturer.

IATA

- 14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

IMDG

- 14.1 UN number : Not dangerous goods
14.2 UN proper shipping name : Not dangerous goods
14.3 Transport hazard class(es) : Not dangerous goods
14.4 Packing group : Not dangerous goods
14.5 Environmental hazards : Not dangerous goods

14.6 Special precautions for user

See section 6 - 8.

- Additional information : Not dangerous cargo.
Keep dry. Avoid heat above +50 °C.
Keep away from foodstuffs,
acids and alkalis.

14.7 Transport in bulk according to Annex II of MARPOL73/78 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 Directive 96/82 EC (Seveso II Directive)

- Revision: 2003
Listed in regulation: Directive 96/82/EC does not apply

Water contaminating class (Germany)

- 1 slightly water endangering
(in accordance with Annex 4 to the Directive on Water-Hazardous Substances)

Any existing national regulations on the handling of isocyanates and solvents must be observed.

Other regulations

The European Committee of Paint, Printing Ink and Artists' Colours Manufacturers' Associations (CEPE) provides the following information on coatings containing isocyanates: Ready-to-use paints containing isocyanates may have an irritant effect on mucous membranes - especially on breathing organs - and cause hypersensitivity reactions. Inhalation of vapor or spray mist may cause sensitisation. When handling paints containing isocyanates all precautions required for solvent-containing paints must be followed. Vapor and spray mist in particular should not be inhaled. Allergics and asthmatics as well as people prone to respiratory ailments should not work with isocyanate containing paints.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been conducted for this substance / mixture resp. its components.

SECTION 16: Other information

Full text of hazardous (H) warnings referred to under sections 2, 3 and 10 of the CLP classification (1272/2008/CE).

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Full text of R-phrases referred to under sections 2, 3 and 10 of the EU classification (67/548/EEC,1999/45/EC).

R20	Harmful by inhalation.
R23	Toxic by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R42/43	May cause sensitization by inhalation and skin contact.
R43	May cause sensitization by skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The product is used mainly as a hardener in coating materials or adhesives. The handling of coating materials or adhesives containing reactive polyisocyanates and residual monomeric HDI requires appropriate protective measures referred to in this safety data sheet. These products may therefore be used only in industrial or trade applications. They are not suitable for use in homemaker (DIY) applications.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.