

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Article no.: 20709

KIWODUR 1000 HMT

Date of print: 15.03.11

Revision date: 26.10.2010

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1. Identification of the substance/ preparation and of the company/ undertaking

Article no. (manufacturer / supplier): 20709
Identification of the substance or preparation: KIWODUR 1000 HMT
Use of the substance/ preparation: Curing agent
Supplier (manufacturer/importer/downstream user/distributor):
KISSEL + WOLF GmbH
In den Ziegelwiesen 6 Telephone: +49 6222 578-0
69168 Wiesloch Telefax: +49 6222 578-100
Dept. responsible for information:
EHS E-mail: ehs@kiwo.de
Environment-Health-Safety Emergency telephone: +49 6222 578 219

2. Hazards identification

Hazard designation:



F Highly flammable



Xn Harmful

Information pertaining to special dangers for human and environment

11 Highly flammable
20 Harmful by inhalation.
36/37/38 Irritating to eyes, respiratory system and skin.
40 Limited evidence of a carcinogenic effect.
42/43 May cause sensitization by inhalation and skin contact.

3. Composition/ Information on ingredients

chemical characterization (preparation)

Description: Mixture of components, as listed below, with nonhazardous constituents

Hazardous ingredients:

EC No: CAS No.:	Identification of the hazard: R phrases:	Labelling (67/548/EEC or 1999/45/EC) Remark:	% by weight
202-966-0 101-68-8	4,4'-methylenediphenyl diisocyanate 20-36/37/38-40-42/43-48/20	Xn	5 - 10
205-500-4 141-78-6	ethyl acetate 11-36-66-67	Xi,F	50 - 100
227-534-9 5873-54-1	diphenylmethane-2,4'-diisocyanate 20-36/37/38-40-42/43-48/20	Xn	0,5 - 1
500-079-6 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues 20-36/37/38-42/43	Xn	25 - 50

Additional information

Full text of R-phrases: see section 16.

4. 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 unconscious position and seek medical advice. In case of irregular breathing or respiratory arrest provide artificial respiration.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing.

In case of eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

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rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion:

Consult physician immediately.

Do not induce vomiting.

5. Fire-fighting measures

Suitable extinguishing media:

Carbon dioxide (CO₂). Water mist Foam.

Extinguishing media which must not be used for safety reasons:

Strong water jet.

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases:

Gases/vapours, toxic.

Special protective equipment for firefighters:

Provide a conveniently located respiratory protective device.

Additional information:

The danger areas must be delimited and identified using relevant warning and safety signs. 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.

6. Accidental release measures

Personal precautions

Keep away from sources of ignition. Ventilate affected area. Remove persons to safety. Do not breathe vapours. See protective measures under point 7 and 8.

Measures to protect the environment

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations. Provide good ventilation.

methods for 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).

7. Handling and storage

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. Product may become electrostatically charged. When transferring, earthed pipework shall be used exclusively. Anti-static clothing including shoes are recommended. Use only spark proof tools. Avoid contact with skin and eyes. Do not inhale vapours or mist.

Do no eat, drink or smoke when using this product.

Personal protective equipment: refer to chapter 8.

Follow the legal protection and safety regulations.

Storage

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storerooms and containers:

Always keep in containers that correspond to the material of the original container. Ensure adequate ventilation of the storage area.

hints on joint storage

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

Further remarks:

VCI-storage class, see Chapter 15

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8. Exposure controls / Personal protection

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.

Components with occupational exposure limits resp. biological occupational exposure limits requiring monitoring:

EC No:	Description:			
202-966-0 101-68-8	4,4'-methylenediphenyl diisocyanate	AGW	0,05 mg/m ³	
205-500-4 141-78-6	ethyl acetate	AGW	1500 mg/m ³	400 ppm

Personal protective equipment

Respiratory protection:

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used.

Hand protection:

Chemical resistant protective gloves: DIN EN 374
Recommendation for contact by spatter: Protection Index 2
Permeation time >30 min., e.g. butyl rubber 0,4 mm
Recommendation for direct contact: Protection Index 6
Permeation time >480 min., e.g. nitrile rubber 0,4 mm

eye protection:

Tightly sealed safety glasses. DIN EN 166

Body protection:

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

Protective measures:

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

Environmental exposure controls

This solvent is to be sent to recycling or to disposal after use. Incorrect disposal endangers the environment. After use, all mixtures with other foreign substances or solvents of other types is forbidden.

9. Physical and chemical properties

Appearance:

Physical state: liquid
Paint: depending on coloration
Odour: typical

Safety relevant basis data		Method	Remark:
Flash point:	-4 °C	DIN 53213	
Ignition temperature (AIT)	460 °C		
lower explosion limit:	2,0 Vol-%		
Upper explosion limit:	11,0 Vol-%		
Vapour pressure:	58,86 mbar (20°C)		
density:	1,03 g/cm ³ (20°C)		
boiling temperature / boiling range:	60 °C (101,3 kPa)		
Water solubility (g/l):	very soluble.		
Viscosity:	10 s 4 mm	DIN 53211	

10. Stability and reactivity

Conditions to avoid

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

Materials to avoid

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

11. Toxicological information

Practical experience

Other observations:

Prolonged or repeated contact with the preparation can lead to irritations of mucous membranes and of skin such as redness, formation of blebs, dermatitis, etc.. After inhalation:: dizziness, Nausea. Inhalation causes narcotic effects/intoxication. 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 components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

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.

12. Ecological information

Overall evaluation:

Do not allow to enter into surface water or drains. Do not store at public landfills.

Results of PBT assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

13. Disposal considerations

Appropriate disposal / Product

Recommendation:

Control report for waste code/ waste marking according to EAKV:

080501 waste isocyanates

Contaminated packaging:

Recommendation: Cleaned containers may be recycled. Vessels not properly emptied are special waste.

14. Transport information

Transport according to ADR/RID, IMDG and ICAO/IATA.

Land transport (ADR/RID)

Class:	3
Hazard label:	3
UN-No.:	1866
Hazard identification number (Kemler No.):	33
Proper Shipping Name	Resin solution
Packing Group:	II
Tunnel restriction code:	D/E

Sea transport (IMDG)

Class:	3
Hazard label:	3
IMDG-CODE-Class:	F-E, S-E
UN-No.:	1866
Proper Shipping Name	RESIN SOLUTION
Packing Group:	II
Marine pollutant:	n.a.

Air transport (ICAO-TI / IATA-DGR)

Class:	3
Hazard label:	3
UN-No.:	1866
Proper Shipping Name	Resin solution
Packing Group:	II

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15. Regulatory information

Observe in addition any national regulations!

Informations on working limitations:

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).

Water Hazard Class:

1 - slightly pollutant
calculated with mixing rule

Storage class:

3
(VCI-concept for storage of chemicals in one common storage facility)

Class: I: 0 % II: 0 % III: 59 %

VbF classification:

A I

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

Danger symbol(s) and danger term(s) for dangerous materials and preparations:



F Highly flammable



Xn Harmful

Contains:

4,4'-methylenediphenyl diisocyanate
diphenylmethane-2,4'-diisocyanate
diphenylmethanediisocyanate, isomeres and homologues

R phrases:

11 Highly flammable
20 Harmful by inhalation.
36/37/38 Irritating to eyes, respiratory system and skin.
40 Limited evidence of a carcinogenic effect.
42/43 May cause sensitization by inhalation and skin contact.

Safety precautions:

16 Keep away from sources of ignition - No smoking.
23 Do not breathe gas/fumes/vapour/spray.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Special provisions concerning the labelling of certain mixtures

91 Contains isocyanates. May produce an allergic reaction.

Other regulations (EU):

VOC

VOC-value (in g/l): 598,555

Listed in TOXIC SUBSTANCES CONTROL ACT (TSCA)

16. Other information

Wording of the r-phrases under paragraph 3:

20 Harmful by inhalation.
36/37/38 Irritating to eyes, respiratory system and skin.
40 Limited evidence of a carcinogenic effect.
42/43 May cause sensitization by inhalation and skin contact.
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
11 Highly flammable
36 Irritating to eyes.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

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Further remarks:

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.