

Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 1 / 8

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

### 1.1. Product identifiers

Article No. (manufacturer/supplier): 20711  
Identification of the substance or mixture                      KIWODUR 930

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

#### Relevant identified uses

Curing agent. Reserved for industrial and professional use.

### 1.3. Details of the supplier of the safety data sheet

#### supplier (manufacturer/importer/downstream user/distributor)

KISSEL + WOLF GmbH

In den Ziegelwiesen 6

69168 Wiesloch

Telephone: 49 6222 578-0

Telefax: 49 6222 578-100

E-mail: info@kiwo.de

#### Dept. responsible for information:

EHS Environment-Health-Safety

E-mail

ehs@kiwo.de

### 1.4. Emergency telephone number

Emergency telephone number                      +49 6222 578 219

## 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].

Flam. Liq. 2 / H225

flammable liquids

Highly flammable liquid and vapour.

Eye Irrit. 2 / H319

Serious eye damage/eye irritation

Causes serious eye irritation.

Resp. Sens. 1 / H334

respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 / H317

respiratory or skin sensitisation

May cause an allergic skin reaction.

STOT SE 3 / H336

Specific target organ toxicity (single exposure)

May cause drowsiness or dizziness.

Aquatic Chronic 3 / H412

Hazardous to the aquatic environment

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

The product is classified and labelled according to EC directives or corresponding national laws.

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

##### Hazard pictograms



**Danger**

##### Hazard statements

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317

May cause an allergic skin reaction.

H336

May cause drowsiness or dizziness.

H412

Harmful to aquatic life with long lasting effects.

##### Precautionary statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261

Avoid breathing vapours.

P280

Wear protective gloves and eye/face protection.

P284

In case of inadequate ventilation wear respiratory protection.

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342 + P311

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P370 + P378

In case of fire: Use Extinguishing powder or sand to extinguish.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

P403 + P235

Store in a well-ventilated place. Keep cool.

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



Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 2 / 8

**contains:**

m-tolylidene diisocyanate  
toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol  
ethyl acetate

**Supplemental Hazard information (EU)**

EUH066                      Repeated exposure may cause skin dryness or cracking.  
EUH204                      Contains isocyanates. May produce an allergic reaction.

2.3. **Other hazards**

**SECTION 3: Composition / information on ingredients**

3.2. **Mixtures**

**Product description / chemical characterization**

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

**Hazardous ingredients**

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

EC No.	REACH No.	Wt %
CAS No.	Chemical name	Remark
INDEX No.	classification:	
500-120-8		
53317-61-6	toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol Eye Irrit. 2 H319 / Skin Sens. 1 H317	70 - 100
205-500-4	01-2119475103-46	
141-78-6	ethyl acetate	25 - 35
607-022-00-5	Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	
247-722-4	01-2119454791-31	
26471-62-5	m-tolylidene diisocyanate	0,3 - 0,5
615-006-00-4	Carc. 2 H351 / Acute Tox. 2 H330 / Eye Irrit. 2 H319 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Resp. Sens. 1 H334 / Skin Sens. 1 H317 / Aquatic Chronic 3 H412	
285-082-8		
85029-57-8	Amines, C10-14-branched and linear alkyl, bis[2,4-dihydro-4-[(2-hydroxy-4-nitrophenyl)azo]-5-methyl-2-phenyl-3H-pyrazol -3-onato(2-)]chromate(1-) Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,3 - 0,5

**Additional information**

Full text of classification: 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 irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately.

**After eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**After ingestion**

Seek medical advice immediately. 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

Carbon dioxide Water mist Foam

#### Extinguishing media which must not be used for safety reasons:

strong water jet

### 5.2. Special hazards arising from the substance or mixture

Gases/vapours, toxic

### 5.3. 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.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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.

### 6.2. Environmental precautions

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.

### 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).

### 6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

## SECTION 7: Handling and storage

### 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. 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 not eat, drink or smoke when using this product.

Personal protection equipment: refer to chapter 8.

Follow the legal protection and safety regulations.

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

#### Technical measures and storage conditions

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

#### Requirements for storage rooms and vessels

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.

#### Additional information

VCI-storage class, see Chapter 15

### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limit values:

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



Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 4 / 8

ethyl acetate  
INDEX No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

TRGS 900, AGW, TWA: 1500 mg/m<sup>3</sup>; 400 ppm  
TRGS 900, AGW, STEL: 3000 mg/m<sup>3</sup>; 800 ppm

m-tolylidene diisocyanate  
INDEX No. 615-006-00-4 / EC No. 247-722-4 / CAS No. 26471-62-5

TRGS 430, TWA: 0,035 mg/m<sup>3</sup>; 0,005 ppm  
TRGS 430, STEL: 0,035 mg/m<sup>3</sup>; 0,005 ppm  
TRGS 430, Ceiling: 0,14 mg/m<sup>3</sup>; 0,02 ppm

**Additional information**

TWA : long-term occupational exposure limit value  
STEL : short-term occupational exposure limit value  
Ceiling : peak limitation

**DNEL:**

ethyl acetate  
INDEX No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

DNEL long-term dermal (local), Workers: 63 mg/kg  
DNEL acute inhalative (local), Workers: 1468 mg/m<sup>3</sup>  
DNEL acute inhalative (systemic), Workers: 1468 mg/m<sup>3</sup>  
DNEL long-term inhalative (local), Workers: 734 mg/m<sup>3</sup>  
DNEL long-term inhalative (systemic), Workers: 734 mg/m<sup>3</sup>

m-tolylidene diisocyanate  
INDEX No. 615-006-00-4 / EC No. 247-722-4 / CAS No. 26471-62-5

DNEL acute inhalative (local), Workers: 0,14 mg/m<sup>3</sup>  
DNEL acute inhalative (systemic), Workers: 0,14 mg/m<sup>3</sup>  
DNEL long-term inhalative (local), Workers: 0,035 mg/m<sup>3</sup>  
DNEL long-term inhalative (systemic), Workers: 0,035 mg/m<sup>3</sup>

**PNEC:**

ethyl acetate  
INDEX No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

PNEC aquatic, freshwater: 0,24 mg/L  
PNEC aquatic, marine water: 0,024 mg/L  
PNEC aquatic, intermittent release: 1,65 mg/L  
PNEC sediment, freshwater: 0,24 mg/kg  
PNEC sediment, marine water: 0,015 mg/kg  
PNEC, Soil: 0,148 mg/kg  
PNEC sewage treatment plant (STP): 650 mg/L

toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidene-trimethanol  
EC No. 500-120-8 / CAS No. 53317-61-6

PNEC, Soil: > 1 mg/kg  
PNEC sewage treatment plant (STP): > 1 mg/L

m-tolylidene diisocyanate  
INDEX No. 615-006-00-4 / EC No. 247-722-4 / CAS No. 26471-62-5

PNEC aquatic, freshwater: 0,013 mg/L  
PNEC aquatic, marine water: 0,0125 x 10<sup>-1</sup> mg/L  
PNEC, Soil: > 1 mg/kg  
PNEC sewage treatment plant (STP): > 1 mg/L

**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.

**Personal protection equipment**

**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).

**Hand protection**

Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 5 / 8

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**

Wear closed protection glasses. DIN EN 166

#### **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.

### **SECTION 9: Physical and chemical properties**

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

##### **Appearance:**

**Physical state**                      liquid  
**Colour**                      depending on coloration  
**Odour**                      typical

##### **Safety relevant basis data**

		<b>Method</b>	<b>Remark</b>
<b>Flash point:</b>	-1 °C	DIN 53213	
<b>Ignition temperature in °C</b>	460 °C		
<b>Lower explosion limit</b>	2,1 Vol-%		
<b>Upper explosion limit</b>	11,5 Vol-%		
<b>Vapour pressure at 20 °C:</b>	27,51 mbar		
<b>Density at 20 °C:</b>	1,17 g/cm <sup>3</sup>		
<b>Water solubility (g/L)</b>	insoluble		
<b>pH at 20 °C:</b>	-		
<b>Viscosity at 23 °C:</b>	455 s 6 mm	DIN 53211	
<b>Initial boiling point and boiling range</b>	76 °C (101,3 kPa)		
<b>Decomposition temperature (°C):</b>	0		

#### 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

#### 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**

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

No data on preparation itself available.

#### 11.1. Information on toxicological effects

##### **Acute toxicity**

ethyl acetate

oral, LD50, Rat: 5600 mg/kg

dermal, LD50, Rabbit: 18000 mg/kg

Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 6 / 8

toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetriethanol

oral, LD50, Rat: > 5000 mg/kg

dermal, LD50, Rabbit:

inhalative (dust and mist), LC50, Rat: > 2,462 mg/L (4 h)

**skin corrosion/irritation; Serious eye damage/eye irritation**

Toxicological data are not available.

**Respiratory or skin sensitisation**

Toxicological data are not available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

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:

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..In case of 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 ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**Remark**

There is no information available on the preparation itself .

**SECTION 12: Ecological information**

**overall evaluation**

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

Do not store at public landfills.

**12.1. Toxicity**

ethyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 230 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna: 717 mg/L (48 h)

Algae toxicity, ErC50, Desmodesmus subspicatus.: 3300 mg/L

**Long-term Ecotoxicity**

Toxicological data are not available.

**12.2. Persistence and degradability**

Toxicological data are not available.

**12.3. Bioaccumulative potential**

Toxicological data are not available.

**Bioconcentration factor (BCF)**

Toxicological data are not available.

**12.4. Mobility in soil**

Toxicological data are not available.

**12.5. Results of PBT 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**



**Safety Data Sheet**  
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according to Regulation (EU) No 453/2010



Article No.: 20711                      KIWODUR 930  
Print date                      19.12.2015                      Revision date 12.05.2015  
Version                      2.0                      Issue date 12.05.2015

EN  
Page 8 / 8

Listed 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**

**Full text of classification in section 3:**

Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
Flam. Liq. 2 / H225	flammable liquids	Highly flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Carc. 2 / H351	Carcinogenicity	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
Acute Tox. 2 / H330	Acute toxicity (inhalative)	Fatal if inhaled.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Resp. Sens. 1 / H334	respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
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.

**Additional information**

Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

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.