

# EC safety data sheet

**Trade name:** Giessharz Isocyanat EGJ-Härter

**Product no.:** B4

**Current version :** 3.1.0, issued: 21.08.2014

**Replaced version:** 3.0.0, issued: 21.07.2014

**Region:** GB

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

### 1.1 Product identifier

**Trade name**

**Giessharz Isocyanat EGJ-Härter**

**Identification numbers**

CAS no. 9016-87-9

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

**Relevant identified uses of the substance or mixture**

filling compound for electrotechnical use

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

**Address**

Cellpack GmbH Electrical Products  
Carl-Zeiss-Strasse 20  
79761 Waldshut-Tiengen

Telephone no. +49 (0)7741 6007-0

Fax no. +49 (0)7741 64989

Email electrical.products@cellpack.com

**Information provided by / telephone**

+49 (0)7741 6007-0

**Advice on Safety Data Sheet**

msds@cellpack.com

### 1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Acute Tox. 4; H332

Carc. 2; H351

Eye Irrit. 2; H319

Resp. Sens. 1; H334

Skin Irrit. 2; H315

Skin Sens. 1; H317

STOT RE 2\*; H373

STOT SE 3; H335

**Classification in accordance with Directive 67/548/EEC or 1999/45/EC**

Carc.Cat.3; R40

R42/43

Xi; R36/37/38

Xn; R20

Xn; R48/20

Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
-	Resp. Sens. 1; H334: C >= 0.1% Eye Irrit. 2; H319: C >= 5% STOT SE 3; H335: C >= 5% Skin Irrit. 2; H315: C >= 5%	-	-

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**Classification information**

(\* , \*\* , \*\*\* , \*\*\*\*) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)**

**Product identifier**

9016-87-9 (diphenylmethanediisocyanate, isomeres and homologues)

**Hazard pictograms**



GHS07



GHS08

**Signal word**

Danger

**Hazard statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer
H373	May cause damage to auditory system through prolonged or repeated exposure by ingestion and inhalation.

**Precautionary statements**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
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.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

**2.3 Other hazards**

The product may be a skin sensitiser. It may also be a severe skin irritant. In case of respiratory system hypersensitivity (asthma, chronic bronchitis) do not handle this product.

**PBT assessment**

The product is not considered to be a PBT.

**vPvB assessment**

The product is not considered to be a vPvB.

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

**3.1 Substances**

**Chemical characterization**

Substance name diphenylmethanediisocyanate, isomeres and homologues

**Identification numbers**

CAS no. 9016-87-9

**3.2 Mixtures**

Not applicable. The product is not a mixture.

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Remove soiled or soaked clothing immediately.

##### After inhalation

Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.

##### After skin contact

Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners!

##### After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

##### After ingestion

Do not induce vomiting. Call a doctor immediately. Never give anything by mouth to an unconscious person. Keep at rest.

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

No data available.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Alcohol resistant foam, CO<sub>2</sub>, powders, water spray

##### Unsuitable extinguishing media

High power water jet

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

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

#### 5.3 Advice for firefighters

Cool endangered containers with water in case of fire. Appropriate breathing apparatus may be required. DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES; Fire residues must be disposed of in a proper manner.

### SECTION 6: Accidental release measures

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

##### For non-emergency personnel

Exclude sources of ignition and ventilate the area. Do not inhale vapours. Refer to protective measures listed in sections 7 and 8.

##### For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

#### 6.2 Environmental precautions

Do not allow to enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Add the same decontaminant to the remnants and let stand for several days until no further reaction in non-sealed container. Once this stage is reached, close container and dispose according to local regulations.

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## 6.3 Methods and material for containment and cleaning up

Clean preferably with a detergent; avoid use of solvents. Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Immediately clean contaminated areas with following substances :

usable(flammable):	Water	45 Vol.%
	Ethanol or Isopropyl Alcohol	50 Vol.%
	Ammonia solution (density=0.88)	5 Vol.%

Alternative applicable to that (not flammable):

	Sodium Carbonate	5 Vol.%
	Water	95 Vol.%

## 6.4 Reference to other sections

No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used ! The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Comply with the health and safety at work laws.

#### General protective and hygiene measures

Do not eat or drink during work - no smoking. Avoid product contact with skin, eyes and clothing

#### Advice on protection against fire and explosion

No special measures necessary.

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

#### Technical measures and storage conditions

Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place. Precautions should be taken to minimise exposure to atmospheric humidity or water: CO<sub>2</sub> will be formed which in closed containers can result in pressurisation. DO NOT KEEP THE CONTAINERS SEALED !! store at 15 - 30 °C.

#### Requirements for storage rooms and vessels

Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access! Containers which are opened must be carefully closed and kept upright to prevent leakage.

#### Advice on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

### 7.3 Specific end use(s)

No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	
<b>List of approved workplace exposure limits (WELs) / EH40</b>			
Isocyanates, all (as -NCO) Except methyl isocyanate			
	STEL	0.07	mg/m <sup>3</sup>
	TWA	0.02	mg/m <sup>3</sup>
	Skin resorption / sensibilisation	Sen	

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## 8.2 Exposure controls

### Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn. Air-fed protective respiratory equipment must be worn by spray operator even when good ventilation is provided.

### Personal protective equipment

#### Respiratory protection

By spraying: air-fed respirator

By other operations than spraying: in well ventilated areas, air-fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

#### Eye / face protection

Wear safety goggles to protect against solvent splashes.

#### Hand protection

Adhere to the professional organisation rule "Use of protective gloves".

Appropriate chemicals resistant glove tested in compliance with EN 374.

Recommendation for protection against components generally found in the products:

For short-term contact (i.e. splash protection):

Appropriate material: nitrile rubber, Neopren

Material thickness: > 0.4 mm

Breakthrough time: > 480 min

Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties).

Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves.

Protective gloves shall be replaced immediately when physically damaged or worn. Preventive hand protection (skin protection cream) recommended. Wash immediately contaminated skin).

Design operations thus to avoid permanent use of protective gloves.

#### Other

Personal should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.

#### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form/Colour</b>	
liquid	
brown	
<b>Odour</b>	
Earthy; musty	
<b>Odour threshold</b>	
No data available	
<b>pH value</b>	
not determined	
<b>Boiling point / boiling range</b>	
Value	> 300 °C

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<b>Melting point / melting range</b>			
No data available			
<b>Decomposition point / decomposition range</b>			
No data available			
<b>Flash point</b>			
Value	>	250	°C
Method	DIN 51758		
<b>Ignition temperature</b>			
Value	>	500	°C
<b>Auto-ignition temperature</b>			
No data available			
<b>Oxidising properties</b>			
No data available			
<b>Explosive properties</b>			
No data available			
<b>Flammability (solid, gas)</b>			
No data available			
<b>Lower flammability or explosive limits</b>			
No data available			
<b>Upper flammability or explosive limits</b>			
No data available			
<b>Vapour pressure</b>			
Value		1	hPa
Reference temperature		20	°C
Method	92/69/EEC, A.4		
Value		12	hPa
Reference temperature		50	°C
Method	92/69/EEC, A.4		
<b>Vapour density</b>			
No data available			
<b>Evaporation rate</b>			
No data available			
<b>Relative density</b>			
No data available			
<b>Density</b>			
Value	appr.	1.24	g/cm <sup>3</sup>
Reference temperature		20	°C
Method	DIN 51757		
<b>Solubility in water</b>			
Remarks	immiscible		

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Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No data available			
Viscosity			
Value	appr.	296	mPa*s
Reference temperature		20	°C
Type	dynamic		
Method	DIN 53211		

## 9.2 Other information

Other information
No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Dangerous reactions are not expecting handling the product according to its intended use.

### 10.2 Chemical stability

release of carbon dioxide (CO<sub>2</sub>) starting from a polymerisation temperature of approximately 200°C.

### 10.3 Possibility of hazardous reactions

Contamination with incompatible materials and other compounds which react with isocyanates may result in dangerous pressure and possible bursting of closed containers.

### 10.4 Conditions to avoid

Stable under recommended storage and handling conditions(See section 7).

### 10.5 Incompatible materials

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result distortion blowing and in extreme cases bursting of the container.

### 10.6 Hazardous decomposition products

In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomers of isocyanates, amines and alcohols may be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute oral toxicity			
LD50	>	10000	mg/kg
Species	rat (male)		
Method	OECD 401		
Acute dermal toxicity			
LD50	>	9400	mg/kg
Species	rabbit		
Method	OECD 402		

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<b>Acute inhalational toxicity</b>	
LC50	0.31 mg/m <sup>3</sup>
Duration of exposure	4 h
State of aggregation	Dust/mist
Species	rats (male/female)
Remarks	The substance was tested in a form (that is to say with a particular grain size distribution) that differs from the forms it is usually marketed and most probably used. Therefore a modified classification for acute inhalation toxicity is acceptable.
<b>Skin corrosion/irritation</b>	
Species	rabbit
Method	OECD 404
Remarks	Toxicological studies were performed using a similar product.
Evaluation	irritant
<b>Serious eye damage/irritation</b>	
No data available	
<b>Respiratory tract irritation</b>	
Species	rabbit
Remarks	irritation to mucous membranes
Evaluation	non-irritant
<b>Respiratory or skin sensitisation</b>	
Route of exposure	Skin
Evaluation	sensitizing
<b>Germ cell mutagenicity</b>	
No data available	
<b>Reproduction toxicity</b>	
No data available	
<b>Carcinogenicity</b>	
No data available	
<b>STOT-single exposure</b>	
No data available	
<b>STOT-repeated exposure</b>	
No data available	
<b>Aspiration hazard</b>	
No data available	
<b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b>	
Prolonged contact with the skin may produce tannic effects and lead to irritation. Eye contact with the product can cause severe eye irritation with redness and conjunctival swelling. Repeated or prolonged skin contact may cause allergic skin reactions in sensitive individuals which can be seen as redness.	
<b>Other information</b>	
Based on the properties of the isocyanate components and considering toxicological data on similar preparations: This preparation may cause acute irritation and/or sensitisation of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.	



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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish (acute)			
LC50	>	1000	mg/l
Duration of exposure		96	h
Species	Brachydanio rerio		
Method	OECD 203		

Toxicity to fish (chronic)			
No data available			

Toxicity to Daphnia (acute)			
EC50	>	1000	mg/l
Duration of exposure		24	h
Species	Daphnia magna		
Method	OECD 202		

Toxicity to Daphnia (chronic)			
No data available			

Toxicity to algae (acute)			
ErC50	>	1640	mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
Method	OECD 201		

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
EC50	>	100	mg/l
Duration of exposure		3	h
Species	activated sludge		
Method	OECD 209		

### 12.2 Persistence and degradability

Biodegradability			
Value		0	%
Method	OECD 302 C		
Evaluation	not readily biodegradable		

Physico-chemical eliminability	
Remarks	The product reacts with water in the boundary layer forming CO <sub>2</sub> and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by watersoluble solvents. According to experience to date, polyurea is inert and is not degradable.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	The product is not considered to be a PBT.
vPvB assessment	The product is not considered to be a vPvB.

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## 12.6 Other adverse effects

No data available.

## 12.7 Other information

### Other information

The product should not be allowed to enter drains or water courses.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

#### Packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

## SECTION 14: Transport information

### 14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

### 14.2 Transport IMDG

The product is not subject to IMDG regulations.

### 14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

### 14.4 Other information

No data available.

### 14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

### 14.6 Special precautions for user

If transported within the user's premises: To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

#### Restriction of occupation

Adhere to the national sanitary and occupational safety regulations when using this product.

### 15.2 Chemical safety assessment

No data available.

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### SECTION 16: Other information

**Sources of key data used to compile the data sheet:**

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

**Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitization by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.