

EC safety data sheet

Trade name: Giessharz Isocyanat EG-Härter

Product no.: B2

Current version : 2.1.0, issued: 09.01.2013

Replaced version: 2.0.0, issued: 13.03.2012

Region: GB

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

1.1 Product identifier

Trade name

Giessharz Isocyanat EG-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

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; H373i

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
-	Resp. Sens. 1; H334: C >= 0.1% STOT SE 3; H335: C >= 5% Eye Irrit. 2; H319: C >= 5% Skin Irrit. 2; H315: C >= 5%	-

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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
H373i	May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/eye protection/face protection.
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.
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.

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. Summon 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, CO₂, powders, water spray

Unsuitable extinguishing media

Full 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

Appropriate breathing apparatus may be required. Cool endangered containers with water in case of fire. 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

Contain and collect spillage with absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent; avoid use of solvents. 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: CO₂ 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 resealed 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

No parameters available for monitoring.

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.

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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

Form/Colour	
liquid	
brown	
Odour	
Earthy; musty	
Odour threshold	
No data available	
pH value	
not determined	
Boiling point / boiling range	
Value	> 300 °C
Melting point / melting range	
No data available	
Decomposition point / decomposition range	
No data available	
Flash point	
Value	> 250 °C
Method	DIN 51758

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Ignition temperature			
Value	>	500	°C

Auto-ignition temperature			
No data available			

Oxidising properties			
No data available			

Explosive properties			
No data available			

Flammability (solid, gas)			
No data available			

Lower flammability or explosive limits			
No data available			

Upper flammability or explosive limits			
No data available			

Vapour pressure			
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		

Vapour density			
No data available			

Evaporation rate			
No data available			

Relative density			
No data available			

Density			
Value	appr.	1.24	g/cm ³
Reference temperature		20	°C
Method	DIN 51757		

Solubility in water	
Remarks	immiscible

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.	

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SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

release of carbon dioxide (CO₂) 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 in 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

Acute inhalational toxicity	
LC50	0.31 mg/m ³
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.

Skin corrosion/irritation	
Species	rabbit
Method	OECD 404
Evaluation	irritant

Serious eye damage/irritation	
No data available	

Respiratory or skin sensitisation	
Route of exposure	Skin
Evaluation	sensitizing

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Germ cell mutagenicity

No data available

Reproduction toxicity

No data available

Carcinogenicity

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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.

Other information

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.

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity

LC50	>	1000	mg/l
Duration of exposure		96	h
Species	Brachydanio rerio		
Method	OECD 203		

Daphnia toxicity

EC50	>	1000	mg/l
Duration of exposure		24	h
Species	Daphnia magna		
Method	OECD 202		

Algae toxicity

ErC50	>	1640	mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
Method	OECD 201		

Bacteria toxicity

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

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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 ₂ 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.

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.

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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, pls. 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.

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/EC

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.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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