

HF Modellkunststoff Komponente B

Version number: SDSCH 1.0

Date of compilation: 12.02.2021

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

1.1 Product identifier

Trade name **HF Modellkunststoff Komponente B**
 Other names or synonyms *HF Modellkunststoff Komponente B*
 Registration number (REACH) not relevant (mixture)

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

Relevant identified uses General use
 Uses advised against For professional users only.

1.3 Details of the supplier of the safety data sheet

C.HAFNER GmbH + Co. KG
 Maybachstr. 4
 71299 Wimsheim
 Germany

Telephone: +49-704490333-0
 Telefax: +49-70449033-40
 e-Mail: Website: www.c-hafner.de

Additional information

Supplier of the product					
Country	Name	Postal code/city	Telephone	Telefax	Website
Germany	C.HAFNER GmbH + Co. KG	71299 Wimsheim	+49-7044-90333-0	+49-7044-9033-40	www.c-hafner.de

e-mail (competent person) michael.huber@c-hafner.de (Dr. Michael Huber)

National contact Dr .Michael Huber
 Telephone: +49-7231-424021-406
 e-mail: Michael.huber@c-hafner.de

1.4 Emergency telephone number

Emergency information service This number is only for medical emergencies
 Opening hours 24h-Notrufnummer

Poison centre						
Country	Name	Postal code/city	Telephone	Telefax	Website	Opening hours
Germany	Gemeinsames Giftinformationszentrum Erfurt	99089 Erfurt	+49 (0)361-730 730	0361-73073-17	ggiz-erfurt.de	Mon - Fri 00:00 - 00:00

1.5 Additional relevant and available information

1.6 Remarks there is no additional information

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
3.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.4R	respiratory sensitisation	1	Resp. Sens. 1	H334
3.4S	skin sensitisation	1	Skin Sens. 1	H317
3.6	carcinogenicity	2	Carc. 2	H351
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
3.9	specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
3.10	aspiration hazard	1	Asp. Tox. 1	H304
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

- Signal word danger

- Pictograms

GHS07, GHS08, GHS09



- Hazard statements

- H304 May be fatal if swallowed and enters airways.
- 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 organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

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- Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P331 Do NOT induce vomiting.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

- Supplemental hazard information

- EUH204 Contains isocyanates. May produce an allergic reaction.

- Hazardous ingredients for labelling

4,4'-methylenediphenyl diisocyanate, Bis(isopropyl)naphthalene

2.3 Other hazards

There is no additional information.



SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS				
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
4,4'-methylenediphenyl diisocyanate	CAS No 101-68-8 EC No 202-966-0 REACH Reg. No 01-2119457014-47	50 - < 75	Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Resp. Sens. 1 / H334 Skin Sens. 1 / H317 Carc. 2 / H351 STOT SE 3 / H335 STOT RE 2 / H373	
Bis(isopropyl)naphthalene	CAS No 38640-62-9 EC No 254-052-6 REACH Reg. No 01-2119565150-48-xxxx	25 - < 50	Asp. Tox. 1 / H304 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
4,4'-methylenediphenyl diisocyanate	Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 %	-	1.5 mg/l/4h	inhalation: dust/mist

For full text of abbreviations: see SECTION 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). No special measures are necessary.
. If medical advice is needed, have product container or label at hand. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention.

Following inhalation

In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In case of fire: Use carbon dioxide, powder extinguisher, water spray or alcohol resistant foam to extinguish

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following substances can be released: nitrogen oxide(NO_x), Carbon dioxide (CO₂) and Carbon monoxide (CO) and hydrocyanic acid (HCN).

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles, Wear self-contained breathing apparatus

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.

6.4 Reference to other sections

Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Consideration of other advice

- Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Source
DE	4,4'-methylene-diphenyl diisocyanate	101-68-8	i, va, DE-AGW-12, H, Sah, Y	AGW		0.05		0.05		0.1	TRGS 900
DE	diphenylmethane-4,4'-diisocyanate (4,4'-MDI)	101-68-8	i, va	MAK		0.05		0.05		0.1	DFG

Notation

- Ceiling-C ceiling value is a limit value above which exposure should not occur
 DE-AGW-12 The occupational exposure limit usually applies only for the monomers. For oligomers or polymers see TRGS 430 "isocyanates"
 H absorbed through the skin
 i inhalable fraction
 Sah substances that sensitise skin and respiratory tracts
 STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
 TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours
 time-weighted average (unless otherwise specified)
 va as vapours and aerosols
 Y a risk of developmental toxicity does not need to be expected if the occupational exposure limit value and the biological limit value (BGW) are adhered to

Biological limit values						
Country	Name of agent	Parameter	Notation	Identifier	Value	Source
DE	diphenylmethane-4,4'-diisocyanate	4,4'-diaminodiphenylmethane	hydr	BAT (BLW)	10 µg/l	DFG

Notation

- hydr hydrolysis

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
4,4'-methylenediphenyl diisocyanate	101-68-8	DNEL	0.05 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
4,4'-methylenediphenyl diisocyanate	101-68-8	DNEL	0.1 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
Bis(isopropyl)naphthalene	38640-62-9	DNEL	8.4 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Bis(isopropyl)naphthalene	38640-62-9	DNEL	2.38 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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8.1.4.5 Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
4,4'-methylenedi-phenyl diisocyanate	101-68-8	PNEC	1 mg/l	aquatic organisms	freshwater	short-term (single instance)
4,4'-methylenedi-phenyl diisocyanate	101-68-8	PNEC	0.1 mg/l	aquatic organisms	marine water	short-term (single instance)
4,4'-methylenedi-phenyl diisocyanate	101-68-8	PNEC	1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
4,4'-methylenedi-phenyl diisocyanate	101-68-8	PNEC	1 mg/kg	terrestrial organisms	soil	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0 mg/l	aquatic organisms	freshwater	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0.15 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0.853 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0.085 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Bis(isopropyl)naphthalene	38640-62-9	PNEC	0.171 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Use protective eyewear to guard against splash of liquids. Wear suitable gloves and eye/face protection.

Skin protection

Preventive skin protection (barrier creams/ointments) is recommended.

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374 and regulation (EU) Nr. 2016/425. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Material of gloves: nitrile rubber; NBR.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection. Type: ABEK-P2 (combined filters against gases, vapours and particles, colour code: Brown/Grey/Yellow/Green/White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	light yellow
Odour	characteristic
Melting point/freezing point	<-30 °C at 101 kPa
Boiling point or initial boiling point and boiling range	> 200 °C
Flammability	not relevant not combustible but contains combustible materials (fluid)
Lower and upper explosion limit	0.7 vol% - 4.7 vol%
Flash point	> 140 °C
Auto-ignition temperature	425 °C (DIN 51794)
Decomposition temperature	not relevant
pH (value)	< 7 (ISO8975)
Kinematic viscosity	not determined
Solubility(ies)	not determined

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	1.422 Pa at 25 °C
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Density and/or relative density

Density	1.1 g/cm ³ at 20 °C
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Particle characteristics	no data available
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9.2 Other information

Of no significance.

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Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Exotherme Reaktion mit Aminen und Alkoholen; Mit Wasser CO₂Entwicklung, in geschlossenen Behältern Druckaufbau; Berstgefahr .

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful if swallowed.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
4,4'-methylenediphenyl diisocyanate	101-68-8	inhalation: dust/mist	1.5 mg _i /4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

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Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity (STOT)

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Acc. to 1272/2008/EC: Very toxic to aquatic life with long lasting effects.
Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 3, highly hazardous to water (Germany)

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4,4'-methylenediphenyl diisocyanate	101-68-8	LC50	>1,000 mg/l	fish	96 h
4,4'-methylenediphenyl diisocyanate	101-68-8	EC50	129.7 mg/l	aquatic invertebrates	24 h
Bis(isopropyl)naphthalene	38640-62-9	LC50	>0.5 mg/l	fish	96 h
Bis(isopropyl)naphthalene	38640-62-9	EL50	1.7 mg/l	aquatic invertebrates	48 h
Bis(isopropyl)naphthalene	38640-62-9	EC50	>0.16 mg/l	aquatic invertebrates	48 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
4,4'-methylenediphenyl diisocyanate	101-68-8	ErC50	>1,640 mg/l	algae	3 d
4,4'-methylenediphenyl diisocyanate	101-68-8	EC50	>100 mg/l	microorganisms	3 h

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12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Bis(isopropyl)naphthalene	38640-62-9	carbon dioxide generation	≤0.1 %	56 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
4,4'-methylenediphenyl diisocyanate	101-68-8	92	4.51 (pH value: ~7, 22 °C)	
Bis(isopropyl)naphthalene	38640-62-9	1,800	6.081	

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

Properties of waste which render it hazardous

- HP 4 irritant - skin irritation and eye damage
- HP 5 specific target organ toxicity (STOT)/aspiration toxicity
- HP 6 acute toxicity
- HP 7 carcinogenic
- HP 13 sensitising
- HP 14 ecotoxic

- Product

08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

- Product residues

08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

- Packagings

15 01 10* packaging containing residues of or contaminated by hazardous substances

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Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name

ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
Technical name (hazardous ingredients)	Bis(isopropyl)naphthalene

14.3 Transport hazard class(es)

ADR/RID/ADN	9
IMDG-Code	9
ICAO-TI	9

14.4 Packing group

ADR/RID/ADN	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

hazardous to the aquatic environment

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Classification code	M6
Danger label(s)	9, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1

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Limited quantities (LQ) 5 L
 Transport category (TC) 3
 Tunnel restriction code (TRC) -
 Hazard identification No 90

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant YES (hazardous to the aquatic environment) (Bis(isopropyl)naphthalene)
 Danger label(s) 9, fish and tree



Special provisions (SP) 274, 335, 969
 Excepted quantities (EQ) E1
 Limited quantities (LQ) 5 L
 EmS F-A, S-F
 Stowage category A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)
 Danger label(s) 9, fish and tree



Special provisions (SP) A97, A158, A197
 Excepted quantities (EQ) E1
 Limited quantities (LQ) 30 kg

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
HF Modellkunststoff Komponente B	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3
4,4'-methylenediphenyl diisocyanate	4,4'-methylenediphenyl diisocyanate	101-68-8	R56	56a

Legend

- R3
- Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
 - Articles not complying with paragraph 1 shall not be placed on the market.
 - Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
 - Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the

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Legend

European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 (a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
 (b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 (c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

R56 1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging:
 (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC (9);
 (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures:
 - Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
 - Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
 - This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Water Framework Directive (WFD)

List of pollutants (WFD)			
Name of substance	CAS No	Listed in	Remarks
4,4'-methylenediphenyl diisocyanate		A)	

Legend

A) Indicative list of the main pollutants

National regulations (Germany)

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK 3 highly hazardous to water
 (water hazard class)

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 10 (combustible liquids)

National inventories

Country	Inventory	Status
EU	REACH Reg.	all ingredients are listed

Legend

REACH Reg. REACH registered substances

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

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SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
AGW	Workplace exposure limit
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DFG	Deutsche Forschungsgemeinschaft MAK- und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≅ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye

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Abbr.	Descriptions of used abbreviations
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Resp. Sens.	Respiratory sensitisation
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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Classification procedure

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H304	May be fatal if swallowed and enters airways.
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 organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.