

according to Regulation (EC) No 1907/2006

JointFoam B

Revision date: 15.06.2022

Product code: isoplus-004

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

1.1. Product identifier

CAS No:

EC No:

JointFoam B Substance name:

Isocyanic acid, polymethylenepolyphenylene ester 9016-87-9 618-498-9

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

Use of the substance/mixture

Component(s) for the manufacture of urethane polymers. For industrial purposes only.

Uses advised against

The product is only to be used for the intended application.

1.3. Details of the supplier of the safety data sheet

Company name:	Isoplus Fernwärmetechnik GmbH
Street:	Schachtstraße 28/42
Place:	D-99706 Sondershausen
Telephone:	+49 (3632) 6516101
e-mail:	sondershausen@isoplus.group
e-mail (Contact person):	kundenservice.deutschland@isoplus.group
1.4. Emergency telephone	national emergency number: +353 1 8092566

<u>number:</u>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Carc. 2; H351 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335 STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word:

Pictograms:



Hazard statements

H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.



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H335	May cause respiratory irritation.					
H373	May cause damage to organs (Respiratory tract) through prolonged or repeated exposure if inhaled.					
Precautionary statement	S					
P260	Do not breathe dust/fume/gas/mist/vapours/spray.					
P280	Wear protective gloves/protective clothing/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.					
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.					
Special labelling of certa	in mixtures					
EUH204	Contains isocyanates. May produce an allergic reaction. As from 24 August 2023 adequate training is required before industrial or professional use.					

2.3. Other hazards

This substance does not meet the criteria for classification as PBT or vPvB.

Avoid any contact with the substance in case of known allergy to isocyanates, skin complaints, hypersensitivity reactions, chronic respiratory disease, asthmatic attacks or bronchial attacks

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No	1272/2008)			
9016-87-9	9 Isocyanic acid, polymethylenepolyphenylene ester				
	618-498-9				
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373				
101-68-8	4,4'-methylenediphenyl diisocyanat	e; diphenylmethane-4,4'-diisocyanate	9	30-50 %	
	202-966-0	615-005-00-9	01-2119457014-47-		
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373				

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity			
	Specific Conc. Limits, M-factors and ATE					
9016-87-9	16-87-9 618-498-9 Isocyanic acid, polymethylenepolyphenylene ester					
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >9400 mg/kg; oral: LD50 = > 10000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 Skin Sens. 1; H317: >= 1 - 100 STOT SE 3; H335: >= 5 - 100 STOT RE 2: H373: >= 10 - 100					
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	30-50 %			
	>9400 mg/kg; c	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >9400 mg/kg; oral: LD50 = 9200 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100				

Further Information

CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.



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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

Remove contaminated clothing immediately and clean before re-use or dispose it if necessary.

After inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If by mouth to mouth use rescuer protection (pocket mask, etc). Where appropriate artificial ventilation. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Call a physician immediately.

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

The following symptoms may occur: tightness in the chest, Cough, Respiratory complaints, eye irritation Allergic reactions

Sensitisation to the respiratory tract. Asthmatic complaints.

Pulmonary oedema

Symptoms may occur with a time delay.

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

Treat symptomatically.

Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids.

Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Suitable extinguishing media:

alcohol resistant foam. (ATC) Carbon dioxide (CO2). Water spray jet. Dry extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide. Carbon dioxide. Hydrogen cyanide. Hydrocyanic acid (hydrocyanic acid). Nitrogen oxides (NOx). Isocyanates.

Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction. Container may rupture from gas generation



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in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

5.3. Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus and chemical-protective clothing. Avoid contact with skin.

Move undamaged containers from immediate hazard area if it can be done safely. fight fire from a remote location

Additional information

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Use personal protective clothing. Information regarding personal protective measures see, section 8. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Special danger of slipping by leaking/spilling product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

For containment

DO NOT use absorbent materials such as: Cement powder (Note: May generate heat.) Soak up with materials, such as: Loose soil. Vermiculite. Sand. Clay Collect in closed and suitable containers for disposal. Suitable materials for containers: metals, plastic, Polylined fiber pacs.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation. Use neutralizing agent. Neutralize with a solution of 5 - 10 % Sodium carbonate, 0,2 - 2 % detergents and 90 - 95 % water. Formulation 2: 3-8% ammonia solution (concentrated), 0,2-2% Detergents, Water. If ammonia is used, use good ventilation to prevent vapor exposure.

6.4. Reference to other sections

Personal protection equipment: see section 8 Handling and storage: see section 7 For waste disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with eyes and skin. Do not inhale vapors.

Provide suitable exhaust ventilation at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid the formation of aerosol. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight.

Protect from moisture.

Clean up contamination as soon as they occur. Provide basic employee training to prevent/minimize exposures. Products freshly manufactured from isocyanates can contain incompletely reacted isocyanates and other dangerous substances, e.g. primary aromatic amines. Industrial cleaning with aprotic polar solvents (meeting the IUPAC definition) may lead to formation of hazardous primary aromatic amine (>0,1%). See Section 11.



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Advice on protection against fire and explosion

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

Advice on general occupational hygiene

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Avoid contact with skin, eyes and clothes. After contact with skin, wash immediately with plenty of water and soap or a suitable cleaning agent.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. The product is: hygroscopic. Protect from moisture, Development of CO2 overpressure possible. Danger of bu

Protect from moisture. Development of CO2 overpressure possible. Danger of bursting when sealed gastight.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs. Keep away from water. Separation of acids and bases.

Further information on storage conditions

Protect from sunlight and heat sources. Avoid ignition sources. Recommended storage temperature: 15-35°C Maximum period of storage (time): 6 months

7.3. Specific end use(s)

Chemical

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
101-68-8	4,4'-Methylene-diphenyl diisocyanate (as -NCO)	0.005	-		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance						
DNEL type Exposure route Effect Value							
101-68-8	101-68-8 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate						
Worker DNEL,	Worker DNEL, acute 0,1 mg/m ³						
Worker DNEL,	long-term	inhalation	local	0,05 mg/m³			
,							

PNEC values

CAS No	Substance					
Environmenta	Environmental compartment Value					
101-68-8	101-68-8 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate					
Freshwater 1 mg						
Marine water	0,1 mg/l					
Micro-organis	1 mg/l					
Soil	Soil					

Additional advice on limit values

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate



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Dow IHG TWA 0,005 ppm DoW IHG STEL 0,02 ppm ACGIH TWA 0,005 ppm TGRS 430 AGW (Vapour Aerosols) 0,05 mg/m3 Currently there are no further exposure limits available. Recommended monitoring procedures: DIN-/EN-Norms EN 689; EN 14042; EN 482

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: Eye glasses with side protection (EN 166)

Hand protection

Chemical resistant protective gloves (EN 374) Thickness of glove material: >0,35 mm Suitable material: PE (polyethylene).; EVAL Recommended material: Butyl rubber.

Unsuitable materials: PVC (Polyvinyl chloride).; Neoprene.

Hand protection during intense and prolonged skin contact.: Breakthrough time>240 Min. short-term: Breakthrough time>60 Min.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Body protection must be chosen depending on activity and possible exposure. Use protective clothing chemically resistant to this material. Apron. Chemical resistant suit. (EN 14605 EN ISO 13982) Boots, safety shoes (e.g. according to EN 20346)

Respiratory protection

Respiratory protection in case of vapour/aerosol release. respiratory protection mask Filter type: AP3 (EN 14387) Cartridge for organic vapours with pre-filter for highly toxic particles

Environmental exposure controls

Do not breathe vapour/spray. With products freshly manufactured from isocyanates body protection and chemical resistant protective gloves is recommended. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	brown
Odour:	earthy



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Odour threshold:	0,4 ppm (MDI)	
		Test method
Melting point/freezing point:	10 °C	
Boiling point or initial boiling point and	Decomposes before boiling	
boiling range:		
Flammability	Ne dete eveileble	
Solid/liquid: Gas:	No data available. No data available.	
Lower explosion limits:	No data available.	
Upper explosion limits:	No data available.	
Flash point:	>204 °C	
Auto-ignition temperature:	No data available.	
Decomposition temperature:	No data available.	
pH-Value:	not applicable	
Viscosity / kinematic:	No data available.	
Water solubility:	Miscibility with water: Reacts with water.	
Solubility in other solvents	,	
No data available.		
Partition coefficient n-octanol/water:	Miscibility with water: Reacts with water.	
Vapour pressure:	No data available.	
Density:	No data available.	
Relative density (at 25 °C):	1,23	A in
Relative vapour density:	6,0	Air
9.2. Other information		
Information with regard to physical haz	ard classes	
Explosive properties		
not Explosive. Sustaining combustion:	No data available	
Self-ignition temperature		
Solid:	No data available.	
Gas:	>600 °C	
Oxidizing properties		
none known		
Other safety characteristics		
Evaporation rate:	No data available.	
Solvent separation test:	No data available.	
Sublimation point:	No data available.	
Softening point:	No data available. No data available.	
Pour point: Viscosity / dynamic:	No data available. 160 - 240 mPa·s	ASTM D4889
Flow time:	No data available.	
SECTION 10: Stability and reactivity		

10.1. Reactivity

No dangerous reactivity under regular conditions.

The substance is chemically stable under recommended conditions of storage, use and temperature. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

10.2. Chemical stability



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The product is chemically stable under recommended conditions of storage, use and temperature. Exposure to elevated temperatures can cause product to decompose and generate gas. Danger of bursting container.

Polymerization can be catalyzed by Alkalis, strong. Water.

10.3. Possibility of hazardous reactions

Reacts with water to form carbon dioxide. Risk of bursting. Reactions with substances containing active hydrogen.

Reaction with: Alcohols. Acids. Alkalis (alkalis). amines. Risk of exothermic reaction Danger of polymerisation Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

10.4. Conditions to avoid

Thermal load Temperature <15°C exposure to moisture

10.5. Incompatible materials

Acids, Alcohols, Amines, Water, alkalines metals (Aluminium. Zinc. Brass. Tin. copper.) Polyols Oxidizing agents, strong.

10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide. Carbon dioxide. Hydrogen cyanide. Hydrocyanic acid (hydrocyanic acid). Nitrogen oxides (NOx). Isocyanates.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if inhaled. Experimental/calculated data: LC50 rat (by inhalation): approx. 0.493 mg/l 4 h - An aerosol was tested.

(by inhalation):The substance from the isocyanate substance class has been tested in a form (respirable aerosol) that is different from the forms in which the product is placed on the market and used. Therefore, the test result is not adequate for the purpose of classification and labelling of the product. Based on expert judgement and available data, a modified classification and labeling for acute inhalation toxicity is justified. The generation of a respirable aerosol must be prevented!



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CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester							
	oral	LD50 mg/kg	> 10000	Rat				
	dermal	LD50 mg/kg	>9400	Rabbit				
	inhalation vapour	ATE	11 mg/l					
	inhalation dust/mist	ATE	1,5 mg/l					
101-68-8	4,4'-methylenediphenyl d	liisocyanate	; diphenylmet	thane-4,4'-diisocyanate				
	oral	LD50 mg/kg	9200	Rat	GESTIS			
	dermal	LD50 mg/kg	>9400					
	inhalation vapour	ATE	11 mg/l					
	inhalation dust/mist	ATE	1,5 mg/l					

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Contains isocyanates. May produce an allergic reaction.May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Isocyanic acid, polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

May cause an allergic skin reaction. (Isocyanic acid, polymethylenepolyphenylene ester;

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (Isocyanic acid, polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/ Polymeric MDI (6 mg/m3) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

In experimental animals, MDI/polymer MDI did not cause birth defects; other effects on the fetus occurred only at high doses that were maternally toxic.

STOT-single exposure

May cause respiratory irritation. (Isocyanic acid, polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Isocyanic acid,

polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate) Tissue damage to the upper respiratory tract and lungs was observed in experimental animals after repeated overexposure to MDI/polymeric MDI aerosols.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

none known



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SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name							
	Aquatic toxicity Dose [h] [d] Species Source Method							
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester							
	Acute fish toxicity LC50 > 1000 96 h Danio rerio OECD 203							

12.2. Persistence and degradability

In the geosphere and hydrosphere, the substance reacts with water mainly to form insoluble polyurea, which appears stable. Based on calculations and analogies with related diisocyanates, it is expected that the substance has a short half-life for degradation in the troposphere. Biological degradation: 0% 28d - OECD 302 C

12.3. Bioaccumulative potential

low

BCF: 92 Cyprinus carpio 28 d Log Pow<3

12.4. Mobility in soil

Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No data available ..

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

Incinerate in suitable incineration plant, observing local authority regulations.

Dispose of isocyanate waste in dry containers and never mix together with other wastes (reaction, dangerous pressure build up).

According to the European Waste Catalogue (EWC), allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

List of Wastes Code - residues/unused products

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; hazardous waste

Contaminated packaging

Contaminated packaging: Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

Do not empty into drains; dispose of this material and its container in a safe way.

SECTION 14: Transport information



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Land transport (ADR/RID) 14.1. UN number or ID number: No dangerous good in sense of this transport regulation. 14.2. UN proper shipping name: No dangerous good in sense of this transport regulation. 14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation. 14.4. Packing group: No dangerous good in sense of this transport regulation. Inland waterways transport (ADN) No dangerous good in sense of this transport regulation. 14.1. UN number or ID number: 14.2. UN proper shipping name: No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. 14.3. Transport hazard class(es): 14.4. Packing group: No dangerous good in sense of this transport regulation. Marine transport (IMDG) 14.1. UN number or ID number: No dangerous good in sense of this transport regulation. 14.2. UN proper shipping name: No dangerous good in sense of this transport regulation. No dangerous good in sense of this transport regulation. 14.3. Transport hazard class(es): 14.4. Packing group: No dangerous good in sense of this transport regulation. Air transport (ICAO-TI/IATA-DGR) 14.1. UN number or ID number: No dangerous good in sense of this transport regulation. 14.2. UN proper shipping name: No dangerous good in sense of this transport regulation. 14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation. 14.4. Packing group: No dangerous good in sense of this transport regulation. 14.5. Environmental hazards ENVIRONMENTALLY HAZARDOUS: No 14.6. Special precautions for user No special precautions known. 14.7. Maritime transport in bulk according to IMO instruments not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII): Entry 3, Entry 56, Entry 74 Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III) (SEVESO III):

Additional information

Regulation (EC) No. 648/2004 [Detergents regulation]: not applicable

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information



Fernwarmetechnik		
D	JointFoam B	D 40 (4
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Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juve work protection guideline' (94/33/EC). Observe employment restriction under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.	
Water hazard class (D): Additional information	1 - slightly hazardous to water	
Observe in addition any national r	egulations!	
15.2. Chemical safety assessment	ety assessment has been carried out.	
SECTION 16: Other information		
Changes Version 1,00 - 15.06.2022 - first ci	reation	
Abbreviations and acronyms		
-	nsport des marchandises dangereuses par Route (European Agreement	
concerning the International Carrie	age of Dangerous Goods by Road)	
. , ,	ective on the Implementation of the Federal Immission Protection Act	
CAS: Chemical Abstracts Service	t für Normung (German Institute for Standardization)	
EC: Effective Concentration		
EG: European Community (Europ	aische Gemeinschaft)	
EN: European Norm		
IATA: International Air Transport A	Association the Construction and Equipment of ships carrying Dangerous Chemicals in	
Bulk	the Construction and Equipment of ships carrying Dangerous Chemicals in	
ICAO: International Civil Aviation	Organization	
IMDG: International Maritime Cod		
ISO: Norm of the International Sta	5	
CLP: Classification, Labeling, Pac IUCLID: International Uniform Che		
LC: Lethal concentration		
LD: Lethal dose		
log Kow: Octanol/water partition c		
MARPOL: Maritime Pollution Con OECD: Organisation for Economic	vention = Convention for the Prevention of Maritime Pollution from Ships	
PBT: Persistent, bio-cumulative, to		
	nternational Transport of Dangerous Goods by Rail	
TRGS: Technische Regeln für Ge	fahrstoffe	
UN: United Nations		
VOC: Volatile Organic Compound vPvB: very persistent and very bic		
VwVwS: Administrative Regulation		
WGK: German Water Hazard Clas		
	m of Classification and Labelling of Chemicals Existing Commercial Chemical Substances	
ELINCS: European List of Notified		
DNEL: Derived No Effect Level		
PNEC: Predicted No Effect Conce	entration	
TLV: Threshold Limiting Value STOT: Specific Target Organ Tox	icity	
STOT. Specific Tardel Ordan Tox		



according to Regulation (EC) No 1907/2006

JointFoam B

Revision date: 15.06.2022

Product code: isoplus-004

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Relevant H and EUH statements (number and full text)

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 (Respiratory tract) through prolonged or repeated exposure
	if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

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