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Safety data sheet

Pureflex

According to REACH Regulation (EC) 1907/2006 including amendment (EU) 2020/878
Version: 1.2 | Revision date: 21.10.2025 | First issue date: 19.04.2021

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

1.1 Product identifier

Product form: Mixture
Product name: Pureflex

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

Use of the mixture: High-performance insulation material
Uses advised against: No information available

1.3 Details of the supplier of the safety data sheet

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1.4 Emergency telephone number

International: +41 44 316 63 73

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not hazardous

Physical classification	**Health classification**	**Environmental classification**
Not hazardous	Not hazardous	Not hazardous

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Signal word (CLP): -
Hazard statements (CLP): -
Precautionary statements (CLP): -
EUH statements: -

2.3 Other hazards

No information available

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Section 3: Composition/information on ingredients

3.2 Mixtures

Chemical name	Product identifier	%	EU classification (EC) No. 1272/2008
Synthetic amorphous silica	CAS 7631-86-9	30 - 50 %	None
Polyurethane foam	CAS 9009-54-5	50 - 70 %	None

Section 4: First-aid measures

4.1 Description of first aid measures

Inhalation: Move to fresh air. Blow your nose and drink water to clear airways. Seek medical attention if symptoms persist.

Skin contact: Wash thoroughly with water and soap. In case of irritation, swelling or itching, consult a doctor. Wash clothing before reuse.

Eye contact: Rinse immediately with water. Seek medical advice if irritation persists.

Ingestion: Drink several glasses of water if conscious. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Silica aerogels repel water and absorb lipids. Inhalation may cause temporary dryness and irritation of eyes, skin, and respiratory tract.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Use extinguishing measures appropriate to the surroundings. Keep away from flammable materials. Cool the product with water if hot.

5.2 Special hazards arising from the substance or mixture

Fire hazard: Flammable, produces heat and smoke when burning.
Explosion hazard: Not explosive.
Hazardous decomposition products: Carbon monoxide, soot, carbon dioxide, hydrogen cyanide, aldehydes, organic acids, steam, irritating and toxic gases.

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Section 5: Firefighting measures

Section 5.3: Advice for Firefighters

Flash point:	Not applicable
Explosion limits in air – lower (g/m³):	Not known
Auto-ignition temperature:	200 °C
Method:	ASTM D-1929
Minimum ignition energy:	Not known
Burning velocity:	Not known
Special protective equipment:	Wear appropriate firefighting gear to avoid inhalation of gases and smoke near the fire.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient ventilation and avoid dust clouds. Use personal protection as described in section 8. Keep ignition sources away.

6.2 Environmental precautions

No special environmental precautions required. Notify local authorities in case of large spills. Material is not water-soluble.

6.3 Methods and materials for containment and cleaning up

Use a suitable vacuum cleaner. Avoid stirring up dust with brooms or compressed air. Transfer residues to properly labeled containers and dispose of as per section 13.

6.4 Reference to other sections

See section 13 for additional information.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Pureflex blankets and boards can generate dust during handling.
Control the workplace to avoid exposure to all dusts. The preferred method for primary dust control is a local exhaust system. Clean up any dust generated during handling immediately, preferably using dry vacuuming. If water is required, use soap to effectively control dust and to overcome the hydrophobic nature of the aerogel. To minimize dust exposure, unpack the material directly in the working area. Scrap should be disposed of. If leftovers need to be reused, store them in a location where dust is likely present. Avoid inhalation and direct contact of dust with skin, eyes, and clothing. Wash hands and clothing with water and soap after handling.

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Section 7: Handling and Storage

7.2 Conditions for safe storage, including any incompatibilities

Store the material in tightly closed containers in a dry, cool, and well-ventilated place, away from heat and flames. Do not store the material where it may be exposed to direct sunlight, as UV rays can cause surface discoloration. Avoid storing Pureflex together with volatile chemicals, as these can be adsorbed by the product.

7.3 Specific end uses

See Section 1.

Section 8: Exposure controls / Personal protection

8.1. Parameters to be monitored

Amorphous silica The legal occupational exposure limits are listed under general silica (CAS RN 7631-86-9)	Australia:	2 mg/m³, TWA, respirable
	Austria (MAK):	4 mg/m³, TWA, inhalable dust fraction
	Finland:	5 mg/m³
	Germany (TRGS 900):	4 mg/m³, TWA, inhalable dust fraction
	India:	10 mg/m³, TWA
	Ireland:	2.4 mg/m³, TWA respirable dust
	Norway:	1.5 mg/m³, TWA respirable dust
	Switzerland:	4 mg/m³, TWA
	UK (WEL):	6 mg/m³, TWA, 2.4 mg/m³, TWA, respirable dust
	US OSHA PEL:	6 mg/m³
Dust or particles without further specification:	US ACGIH:	10 mg/m³, TWA, inhalable 3 mg/m³, TWA, respirable
	Belgium:	10 mg/m³, TWA, inhalable 3 mg/m³, TWA, respirable
	China:	8 mg/m³, TWA 10 mg/m³, STEL
	Italy:	10 mg/m³, TWA, inhalable 3 mg/m³, TWA, respirable
	Malaysia:	10 mg/m³, TWA, inhalable 3 mg/m³, TWA, respirable
	Spain:	10 mg/m³, VLA, inhalable 3 mg/m³, VLA, R respirable
	France:	10 mg/m³, TWA inhalable 5 mg/m³, TWA respirable

MAK: Maximum Workplace Concentration
OEL: Occupational Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances

TWA: Time Weighted Average
US ACGIH: United States American Conference of Governmental Industrial Hygienists
US OSHA: United States Occupational Health and Safety Administration
VLA: Ambient Limit Value (Environmental Limit)
WEL: Workplace Exposure Limit

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Section 8: Exposure controls / Personal protection

8.2 Limitation and Monitoring of Exposure

Technical protective measures:	Ensure adequate local exhaust ventilation to minimize exposure, especially in areas where the product is processed and dust may be generated.

Personal protective equipment

Respiratory protection:	A certified particulate respirator is recommended when exposure limits are exceeded due to insufficient local exhaust, particularly if inhalation of dust causes irritation.
Skin and hand protection:	Suitable gloves are recommended when handling the product to prevent skin dryness caused by repeated exposure. It is also recommended to apply an appropriate hand cream before and after handling the material to protect and care for the skin. Work clothing such as long sleeves and trousers is likewise recommended.
Eye protection:	The use of safety goggles with side protection or protective glasses is advised.
Other:	Good industrial hygiene and safety practices should generally be followed. It is recommended to have an eyewash station and a safety shower nearby.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance / physical form:	White yellowish mat or panel (solid, flexible)
Odour:	None
pH value:	Not applicable
Vapour pressure:	Not applicable
Decomposition temperature:	Over 180 °C
Stability:	Stable at temperatures between -40 and 100 °C
Boiling point / range:	Synthetic amorphous silica: 2230 °C after partial decomposition Polyurethane foam: Not available
Melting point / range:	Synthetic amorphous silica: 1700 °C after partial decomposition Polyurethane foam: None, but decomposes into gaseous components
Water solubility:	Insoluble
Relative density:	60 – 300 kg/m³ @ 20 °C
% Volatile (by volume):	Negligible
Evaporation rate:	Not applicable
Viscosity:	Not applicable
Partition coefficient (n-octanol / water):	Not applicable
Flash point:	Not applicable
Explosion limits in air – lower (g/m³):	220 g/m³ (dust)
Auto-ignition temperature:	200 °C
Method:	ASTM D-1929

9.2. Other Information

No further information available

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Section 10: Stability and Reactivity

10.1 Reactivity

Not reactive under normal conditions of use.

10.2 Chemical Stability

Stable.

10.3 Possibility of Hazardous Reactions

None known.

10.4 Conditions to Avoid

Flames and prolonged exposure above the recommended use temperature should be avoided.

10.5 Incompatible Materials

None known.

10.6 Hazardous Decomposition Products

No hazardous decomposition products are formed under normal storage and usage conditions.

Section 11: Toxicological Information

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

Inhalation:	Inhalation of dust may cause temporary irritation of mucous membranes and upper respiratory tract.
Ingestion:	No expected side effects have been recorded.
Skin contact:	Handling may cause dryness and temporary skin irritation.
Eye contact:	Contact may lead to redness and cracks. Dust may cause abrasions.
Chronic effects:	None known.
Sensitisation:	No components are known to be sensitising.
Germ cell mutagenicity:	It has been shown that none of the components causes germ cell mutagenicity.
Reproductive toxicity:	No components are reproductive toxins.
Carcinogenicity:	None of the components is classified by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference of Governmental Industrial Hygienists), or the EU as carcinogenic or possibly carcinogenic.
Acute toxicity values:	Components are not acutely toxic.

11.2. Information on other hazards

None known.

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Section 12: Ecological Information

12.1 Toxicity

No information available

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

No information available

Section 13: Disposal Considerations

13.1 Waste treatment methods

The product should be disposed of in an approved landfill in accordance with federal, state/provincial, and local regulations. Avoid dust generation by covering the product immediately.

Section 14: Transport Information

14.1 UN number or ID number

Not a hazardous material under transport regulations

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard classes

Not regulated

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Section 14: Transport Information

14.4 Packaging group

Not regulated

14.5 Environmental hazards

Not regulated

14.6 Special precautions for user

Road transport:	Not regulated	Sea transport:	Not regulated
Air transport:	Not regulated	Inland waterway transport:	Not regulated
Rail transport:	Not regulated		

14.7 Bulk transport according to IMO instruments

Not applicable

Section 15: Regulatory Information

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

Input for external material data systems or PU foam converters
Flexible polyurethanes are polymers and are defined in data systems, i.e., IMDS, as a product and not as a chemical substance. Regarding REACH, polyurethane foam is defined as an "article."

A number of raw materials are used in the production of PU foam. These include isocyanates, polyols (main component), and water (minor component). These ingredients fully react during foam production and are chemically incorporated into the PU polymer matrix. Additionally, other essential additives with various properties are used in small concentrations, some of which may also be chemically bonded to the matrix.

Depending on the final application, legal requirements or customer requests may require PU foam to contain one of the following substances:
- Aliphatic and/or cycloaliphatic amine catalysts
- Flame retardants
- Polysiloxane compounds
- Inorganic metal catalysts
- Organic and/or inorganic pigments

Additives that prohibit the chemical recycling path are not present. Substances such as Hg, Cd, Pb and Cr6+ are not intentionally added to the formulation. When reporting to customers in the automotive sector, the use of IMDS is mandatory. In addition to the material PU foam, additives must be reported according to the requirements of the GADSL.
GADSL = Global Automotive Declarable Substance List

Note on Regulation (EC) No. 1907/2006 (REACH)
AGITEC AG is neither a manufacturer nor a supplier of chemical substances or mixtures. Under EC 1907/2006 (REACH), AGITEC AG is considered a downstream user and product manufacturer. For these, the creation of (material) safety data sheets (MSDS) is not required. Information obligations only apply if substances from the SVHC list are included. Since this is not the case for all AGITEC AG products, no safety data sheet exists—in full compliance with the REACH regulation. Therefore, the misleading impression that AGITEC AG products fall under the scope of REACH should be avoided. In case of changes, AGITEC AG will fulfill its obligations and provide information in accordance with REACH without being asked.

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Section 15: Regulatory Information

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16: Other Information

HMIS Rating
*HMIS Index: * = Chronic / 0 = Minimal / 1 = Slight / 2 = Moderate / 3 = Serious / 4 = Severe*

Health:	1
Flammability:	2
Physical Hazard:	0

DISCLAIMER: The information contained in this safety data sheet is considered correct by AGITEC at the time of publication. However, no express or implied warranty is intended. It is the user's responsibility to ensure that all activities comply with federal, state, and local laws and regulations. Therefore, AGITEC assumes no legal responsibility for the use or reliance on this information.