

INSULATION JUST GOT BETTER

# ArmaGel HT

Your material safety datasheet (MSDS)  
for our flexible aerogel blanket for  
high-temperature applications.

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ArmaGel

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

- 1.1 Product identifier**  
Trade name  
ArmaGel HT
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Relevant identified uses of the substance or mixture  
Thermal insulation for pipe-work, vessels and related installation  
Uses advised against  
No data available.
- 1.3 Details of the supplier of the safety data sheet**  
**Address**  
Armacell GmbH  
Robert-Bosch-Straße 10  
48153 Münster  
Telephone no. +49 (0) 251 - 7603-200  
Fax no. +49 (0) 251 - 7603-561  
e-mail info.de@armacell.com
- Information provided by / telephone**  
Dr. Heribert Quante, Tel.: +49 (0) 251 - 7603-227
- Advice on Safety Data Sheet**  
heribert.quante@armacell.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 information**  
This product is in the sense of article 3 of the Regulation (EC) 1907/2006 (REACH) an article and not subject to the labelling obligations according to: Art. 1, Regulation (EC) 1272/2008 (CLP).  
To provide a safety data sheet is not mandatory for articles according to art. 31 of the Regulation (EC) 1907/2006 (REACH) and is done on a voluntary basis.
- 2.2 Label elements**  
Not relevant
- 2.3 Other hazards**  
Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

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

- 3.1 Substances**  
Not applicable. The product is not a substance.
- 3.2 Mixtures**  
**Hazardous ingredients**  
This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.

**SECTION 4: First aid measures**

- 4.1 Description of first aid measures**  
**General information**  
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes and launder thoroughly before reusing.  
**After inhalation**  
Ensure supply of fresh air.  
**After skin contact**  
When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.  
**After eye contact**  
Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).  
**After ingestion**  
Rinse mouth thoroughly with water.
- 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**  
No data available.

**SECTION 5: Firefighting measures**

- 5.1 Extinguishing media**  
**Suitable extinguishing media**  
Extinguishing measures to suit surroundings.  
**Unsuitable extinguishing media**  
High power water jet

- 5.2 Special hazards arising from the substance or mixture**  
In case of ambient fire possible release of: Oxides of silica; Aluminium oxide; Iron oxide
- 5.3 Advice for firefighters**  
Use self-contained breathing apparatus. Wear protective clothing.

**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
For non-emergency personnel  
Refer to protective measures listed in sections 7 and 8. avoid dust development  
For emergency responders  
No data available. Personal protective equipment (PPE) - see Section 8.
- 6.2 Environmental precautions**  
Do not discharge into the drains/surface waters/groundwater.
- 6.3 Methods and material for containment and cleaning up**  
Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".
- 6.4 Reference to other sections**  
No data available.

**SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling**  
**Advice on safe handling**  
Avoid the formation and deposition of dust.  
**General protective and hygiene measures**  
Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke during work time. Remove soiled or soaked clothing immediately. Avoid contact with eyes and skin. Do not inhale vapours or dust.  
**Advice on protection against fire and explosion**  
Keep away from sources of heat and ignition.
- 7.2 Conditions for safe storage, including any incompatibilities**  
**Technical measures and storage conditions**  
Store in a dry place. Protect from heat and direct sunlight.  
**Advice on storage assembly**  
Protect against humidity
- 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**  
No data available.  
**Personal protective equipment**  
**Respiratory protection**  
Dust mask  
**Eye / face protection**  
Safety glasses (EN 166)  
**Hand protection**  
Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product .  
**Appropriate Material**  
Leather  
**Other**  
Chemical-resistant work clothes.  
**Environmental exposure controls**  
No data available.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

**Form/Colour**  
solid; blanket  
grey

**Odour**  
No data available

**Odour threshold**  
No data available

**pH value**  
No data available

**Boiling point / boiling range**

No data available

**Melting point / melting range**

No data available

**Decomposition point / decomposition range**

No data available

**Flash point**

No data available

**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**

No data available

**Vapour density**

No data available

**Evaporation rate**

No data available

**Relative density**

No data available

**Density**Density 160 - 240 g/cm<sup>3</sup>**Solubility in water**

No data available

**Solubility(ies)**

No data available

**Partition coefficient: n-octanol/water**

No data available

**Viscosity**

No data available

**9.2 Other information****Other information**

No data available

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available.

**10.2 Chemical stability**

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

**10.3 Possibility of hazardous reactions**

None, if handled according to order.

**10.4 Conditions to avoid**

Heat, naked flames and other ignition sources. Moisture.

**10.5 Incompatible materials**

No data available.

**10.6 Hazardous decomposition products**

No data available.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

**Acute oral toxicity**  
No data available

**Acute dermal toxicity**  
No data available

**Acute inhalational toxicity**  
No data available

**Skin corrosion/irritation**  
No data available

**Serious eye damage / irritation**  
No data available

**Respiratory or skin sensitisation**  
No data available

**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**  
Repeated and prolonged exposure to high dust concentrations may lead to irritation of the respiratory tract

**SECTION 12: Ecological information****12.1 Toxicity**

**Toxicity to fish (acute)**  
No data available

**Toxicity to fish (chronic)**  
No data available

**Toxicity to Daphnia (acute)**  
No data available

**Toxicity to Daphnia (chronic)**  
No data available

**Toxicity to algae (acute)**  
No data available

**Toxicity to algae (chronic)**  
No data available

**Bacteria toxicity**  
No data available

**12.2 Persistence and degradability**  
No data available

**12.3 Bioaccumulative potential**  
No data available

**12.4 Mobility in soil**  
No data available

**12.5 Results of PBT and vPvB assessment**  
No data available

**12.6 Other adverse effects**  
No data available

**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**

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information****14.1 Transport ADR/RID/ADN**

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

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

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

**14.4 Other information**

No data available

**14.5 Environmental hazards**

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

**14.6 Special precautions for user**

No data available

**14.7 Transport in bulk according to Annex II of Marpol 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 regulation****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

**REACH candidate list of substances of very high concern (SVHC) for authorisation**

According to available data and the information provided by preliminary suppliers, the article does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

**Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This product is not subject to Part 1 or 2 of Annex I.

**15.2 Chemical safety assessment**

No data available

**SECTION 16: Other information****Further information**

Authors responsible for the compilation of the material safety data sheet:

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The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create any legal obligation.

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

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case. EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case. Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

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

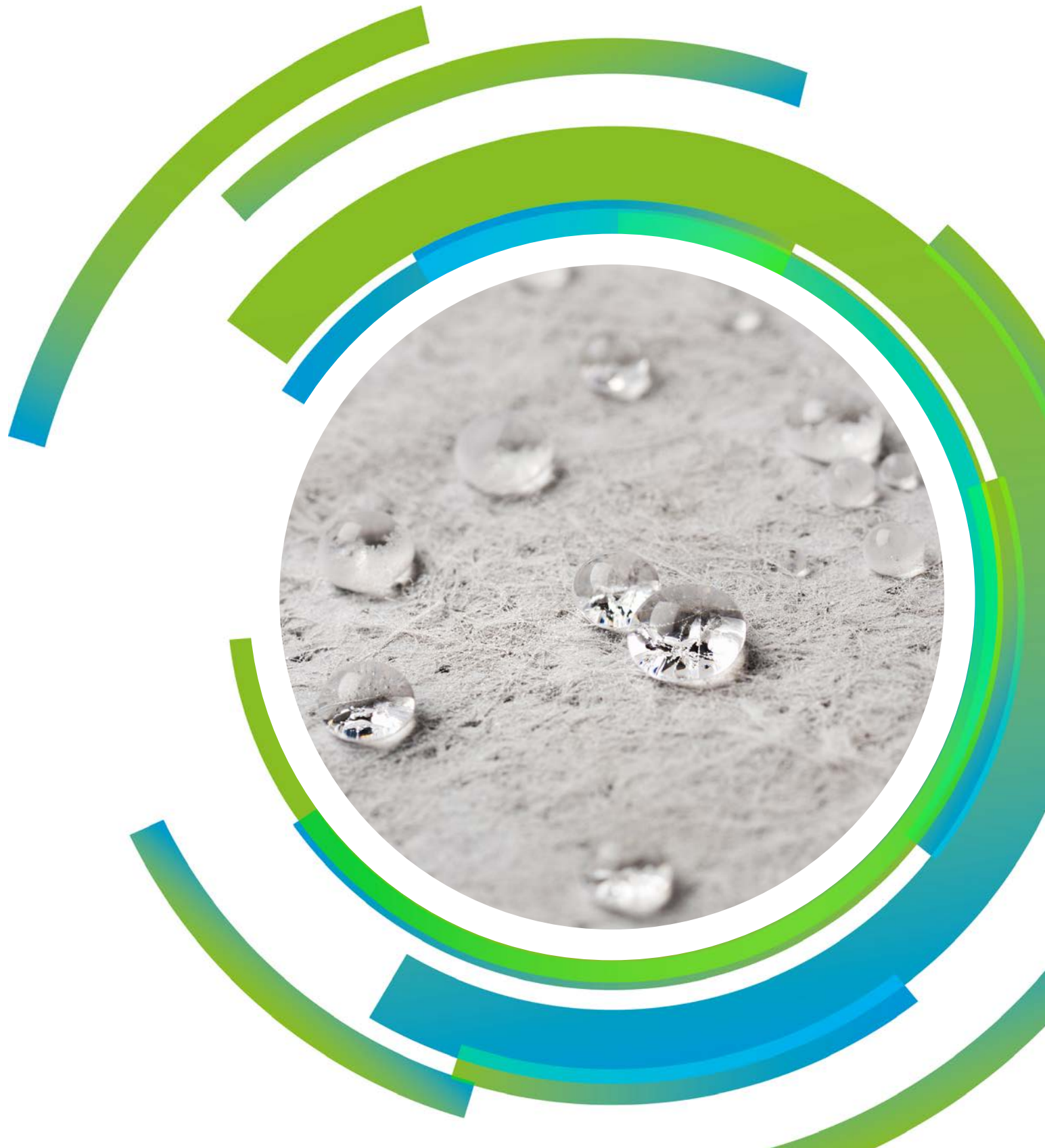
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Prod-ID 731873





All data and technical information are based on results achieved under typical application conditions. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. By ordering/receiving product you accept the **Armacell General Terms and Conditions of Sale** applicable in the region. Please request a copy if you have not received these.

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## ABOUT ARMACELL

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As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,000 employees and 25 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more information, please visit:  
[www.armacell.com/armagel](http://www.armacell.com/armagel)

