ThermaSmart® Marine 2.0 Black

Safety Data Sheet

Issued on: 23.10.2023
Version: v.1.0 – 23.10.2023

Section 1: Identification of the mixture and of the company

1.1. Product identifier

ThermaSmart® Marine 2.0 Black

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

Thermal insulation product for building equipment and industrial installations.

1.3. Details of the supplier of the safety data sheet

Thermaflex Izolacji sp. z o.o.
58-130 Żarów
ul. Przemysłowa 6, Poland
tel. +48 74 85-89-666
fax. +48 74 85-89-667

1.4. Emergency phone number

Call Thermaflex Izolacji Sp. z o.o.
+48 74 85 89 666 (line available 8 a.m. – 4 p.m.)

Section 2: Hazards identification

2.1. Classification of the mixture

Because of the product in which the material is placed on the market in accordance with Annex 1, section 1.3.4.1 of REGULATION (EC) No 1272/2008, there is no labelling obligation. Metals in massive form, alloys, mixtures containing polymers and mixtures containing elastomers do not require a label according to this Annex, if they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market, although classified as hazardous in accordance with the criteria of this Annex.

2.2. Label elements

Not applicable in relation to REGULATION (EC) No 1272/2008 with the latest changes

2.3. Other hazards

ThermaSmart® Marine 2.0 Black foam will burn when provided with an adequate amount of heat and oxygen; therefore do not expose the material to any flame or other source of ignition or heat. ThermaSmart® Marine 2.0 Black-formulations and aluminum top layer will basically prevent the foam from burning; it will show improved fire retardant properties in terms of reduction of fire ignition and fire spread in well-defined burn tests. Subject to reasonable care and cleanliness there are no obvious problems associated with the handling of polyolefin foams. When using do not eat, drink or smoke. Wash hands before breaks and at the end of work.

Foam containing flame retardant includes antimony trioxide. This component is subject to CLP regulation:

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Antimony trioxide	(EC no) 215-175-0 (REACH-no) 01-2119475613-35	1.5 – 4	Carc. 2, H351

Full text of H- and EUH-phrases: see section 16

Section 3: Composition/ information on ingredients

3.1. Substances

n/a

3.2. Mixture

ThermaSmart® Marine 2.0 Black is a thermoplastic polyolefin foam, which is produced in a continuous extrusion process and covered with an aluminum top layer.
ThermaSmart® Marine 2.0 Black foam is based on polyolefin polymers and physically foamed with an organic foaming agent. The foaming agent is known as non-depleting substance to the ozone layer.

Section 4: First aid measures

4.1. Description of first aid measures

After contact to skin or eyes: No special measures. See 11 Toxicological information If headache, nausea or vomiting occur, contact a doctor.

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

No further relevant information available.

4.3. Indication of any immediate attention and special treatment needed

No further relevant information available.

Section 5: Firefighting measures

5.1. Fire extinguishing media

Water spray, extinguishing foam, CO_2-extinguisher.

5.2. Special hazards arising from the mixture

In case of fire: if smoke is inhaled, which contain mainly carbon dioxide (CO_2) and carbon monoxide (CO): recommended measures are fresh air, coffee and possibly artificial respiration (call a doctor immediately). If skin is burned through contact with molten material: cool burned parts with water, do not remove the material from the skin. If skin burn grade 2 or 3 is reached: call a doctor immediately.

5.3. Advice for firefighters

Use respirator/oxygen mask in enclosed areas. Avoid dense smoke and do not inhale smoke from combustion. Use safety glasses and protect skin/body with protective clothing against molten ThermaSmart® Marine 2.0 Black foam. The fresh product may contain traces of isobutane.

Section 6: Accidental release measures

Not applicable

Section 7: Handling and storage

7.1. Precautions for safe handling

Practice reasonable care as a normal safety precaution. Fabrication areas should be well ventilated to carry away fumes, vapors and dust. Operatives should be assured of a supply of fresh air. The working environment should be kept clean and free of dust.

7.2. Conditions for safe storage, including any incompatibilities

Practice reasonable care and cleanliness; provide adequate distance between stacks as a safety precaution. Do not expose to any source of flame, ignition or heat. Recommended storage is inside due to degradation under UV and heat sensitivity of the product. It is not recommended to store significant quantities in non-ventilated rooms and near sources of fire due to the possible trace of flammable gases.

7.3. Specific end use(s)

No further relevant information available.

Section 8: Exposure controls/ personal protection

8.1. Control parameters

Not applicable

8.2. Exposure controls

Breathing protection	: Use special personal breathing respirator/mask or filter, in special fabrication areas (see 7.1 Handling) that are not well ventilated, in order to protect from fumes, vapors and dust.
Hand protection	: Wear gloves (cotton, wool or leather), when working in fabrication areas utilizing heat processes, to prevent from possible thermal injury from hot foam.
Eye protection	: Use goggles or face masks, when working in fabrication areas utilizing heat processes, to prevent possible contact with hot foam and thermal injury.
Body protection	: Wear clothes and shoes, to protect the full body skin, especially when working in fabrication areas utilizing heat processes, to prevent possible thermal injury (burns).

8.3 Environmental exposure control

Comply with current regulations regarding discharge restrictions into air, water and soil. Protect the environment by taking appropriate precautions to counteract or limit emissions.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Grey, metallic, flexible, closed cell, foam web covered with a black aluminum top layer, available in a wide variety of types.
Odour:	odourless
Softening range foam:	>75 °C
Autoflammability foam:	>300 °C
Thermal decomposition foam:	>160 °C
Explosive properties:	none
Apparent density foam:	21 - 40 kg/m^3
Sollubility in:	water: insoluble organic solvent : insoluble, partly soluble, swelling; depending on solvent type.

9.2. Other information

The physical properties presented above are typical values and should not be construed as a specification.

Section 10: Stability and reactivity

10.1. Reactivity

Avoid any temperature >160 °C over a period >10 minutes.
Avoid any contact with strong oxidizing chemicals.

10.2. Chemical stability

Product is chemically stable.

10.3. Possibility of hazardous reaction

No further relevant information available.

10.4. Conditions to avoid

Avoid any contact with strong oxidizing chemicals.
Avoid storage in direct sunlight.

10.5. Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Dangerous decomposition gases/vapors in heat fabrication processes, combustion gases in case of fire.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicologically harmless. Polyolefin foams are among the most inert polymer foams and constitute no hazards in terms of normal handling and skin contact.

Hazard classification	Information/comments
Inhalation Acute toxicity: no final data available for the material	Non-toxic. Based on chemical structure (polymers)
Irritation: no final data available for the material	Non-irritant.
Ingestion Acute toxicity: no final data available for the material	Non-toxic. Based on chemical structure (polymers)
Skin contact Acute toxicity: no final data available for the material	Non-toxic. Based on chemical structure (polymers)
Eye contact Serious eye damage/irritation: no final data available for the material	Non-irritant.
Allergic reaction Respiratory sensitization: no final data available for the material	Not expected to cause respiratory sensitization
Skin sensitization: no final data available for the material	Not expected to cause respiratory sensitization. Based on chemical structure (polymers)
Inhalation No final data available for the material	Not expected to cause aspiratory risk, based on the physic-chemical properties of the material
Mutagenicity of reproductive cells No final data available for the material	Not expect to cause a mutagenic effect on reproductive cells. Based on chemical structure (polymers)
Carcinogenicity No final data available for the material	Presence of antimony trioxide, this is suspected of causing cancer (H351). Only dangerous in case of release of antimony trioxide into the environment or human body
Reproductive toxicity No final data available for the material	Not expected to be toxic to reproductivity. Based on chemical structure (polymers)
Lactation No final data available for the material	Not expected to cause negative effect to breastfeeding.

Specific target organ toxicity (STOT)	
One time exposure: no final data available for the material	Not expected to cause organ damage following single exposure.
Repeated exposure: no final data available for the material	Not expected to cause organ damage following prolonged or repeated exposure. Based on chemical structure (polymers)

Section 12: Ecological information

12.1. Toxicity

Environmentally harmless:

- insoluble in water: no contamination
- insoluble in most solvents
- degradable only by UV light

ThermaSmart® Marine 2.0 Black are produced (H)CFC free.

12.2. Persistence and degradability

No further relevant information available.

12.3. Bio accumulative potential

No further relevant information available.

12.4. Mobility in soil

Not applicable

12.5. Results of PBT and vPvB assessment

PBT:Not applicable

vPvB: Not applicable

12.6. Other adverse effects

No further relevant information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Recycling: 100% recyclable to be used in own products.

Disposal: When disposing of any wastes, observe all applicable national and local regulations.

Section 14: Transport information

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

No restriction and no dangerous material in relation to transportation regulations according to regulations ADR/RID, IMO and IATA

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 (REACH) Annex XIV: List of substances subject to authorization – none of the ingredients are listed.

15.2. Chemical safety assessment

Chemical Safety Assessment isn't available

Section 16: Other information

Full text of H- and P-phrases:

Carc. 2	Carcinogenicity, Category 2
H351	Suspected of causing cancer

For additional product information contact Thermaflex Izolacji Sp. z o.o.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IATA: International Air Transport Association

PBT: Persistent, Bio accumulative and Toxic

vPvB: very Persistent and very Bio accumulative