ThermaEco FRZ
Safety Data Sheet
Issued on: 12.09.2018
Version: 4/2018

Section 1: Identification of the mixture and of the company

1.1. Product identifier
ThermaEco FRZ

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
Safety responsible: Plant Director

1.4. Emergency phone number
Do call Thermaflex Izolacji Sp. z o.o.
+48 661 111 131 (the line available 8 a.m. – 4 p.m.)

Section 2: Hazards identification

2.1. Classification of the mixture
Not classified as dangerous according to ORDINANCE (WE) 1272/2008 with the later changes

2.2. Label elements
Not applicable in relation to ORDINANCE (WE) 1272/2008 with the later changes

2.3. Other hazards
ThermaEco FRZ 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. 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.
Section 3: Composition/ information on ingredients

3.1. Substances
n/a

3.2. Mixtures
ThermaEco FRZ is a thermoplastic polyolefin foam, which is produced in a continuous extrusion process. ThermaEco FRZ 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, CO2-extinguisher.

5.2. Special hazards arising from the mixture
In case of fire: if smoke gases are inhaled, which contain mainly carbon dioxide (CO2) and carbon monoxide (CO): fresh air, coffee and possibly artificial respiration (call immediately a doctor) are the recommended measures. If body skin is burned through contact with molten foam: cool burned parts with water, but do not remove the foam from the skin. If skin burn grad 2 or 3 is reached: call immediately a doctor.

5.3. Advice for firefighters
Use respirator/oxygen masks in enclosed areas. Avoid dense smoke and do not inhale the smoke gases from combustion. Use safety glasses and protect skin/body with protective clothing against molten ThermaEco FRZ. The fresh product may contain traces of isobutane.
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, vapours 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 UV light and heat sensitivity. 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, vapours 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).
### Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- **Appearance:** Grey, flexible, closed cell, foam web, available in a wide variety of types.
- **Odour:** Odourless
- **Softening range:** >75 °C
- **Autoflammability:** >300 °C
- **Thermal decomposition:** >160 °C
- **Explosive properties:** None
- **Apparent density:** 25-36 kg/m³
- **Sollubility in:**
  - Water: insoluble
  - Organic solv.: 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 min.
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/vapours 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.

Section 12: Ecological information

12.1. Toxicity
Environmentally harmless:
- insoluble in water: no contamination
- insoluble in most solvents
- degradable only by UV light
TheraEco FRZ is produced (H)CFC free.

12.2. Persistence and degradability
No further relevant information available.

12.3. Bioaccumulative 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

15.2. Chemical safety assessment
Chemical Safety Assessment isn’t available

Section 16: Other information

No further relevant information available.

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, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative