SAFETY DATA SHEET

[in accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Date of update: 13.08.2021 Version: 2.0/EN

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

1.1 Product identifier

System board KR50-1G EPS 150,
System board KR50-1G EPS 200,
System board KR75-1G EPS 150,
System board KR75-1G EPS 200,
System board KR/N-1G EPS 150,
System board KR/N-2G EPS T 040
System board KR50/L-1G EPS 150,
System board KR50/L-1G EPS 200,
System board KR75/L-1G EPS 150,
System board KR75/L-1G EPS 200,
System board KR/N-1G EPS 200,

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

Relevant identified uses: article used for thermal insulation in water-based floor heating systems in building.

Uses advised against: not determinated.

1.3 Details of the supplier of the safety data sheet

Producer : **KOTAR Sp. z o.o**

Adress: Kościuszki 33 Street, 56-100 Wołów, Poland

Telefon/fax.: +48 713 892 316, 713 894 494/+48 713 894 494 ext. 21

www.kotar.pl

E-mail address for a competent person responsible for SDS: kotar@kotar.pl

1.4 Emergency telephone number

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Section 2: Hazards identification

2.1 Classification of the substance or mixture

According to art. 2 of REACH product is defined as article and it does not require classification.

2.2 Label elements

According to art. 2 of REACH product is defined as article and it does not require labeling.

2.3 Other hazards

Substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight. Freshly manufactured panel can release a foaming agent – residual pentane, which can form explosive mixtures with air in contained areas e.g., during transport and storage of the product.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

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3.2 Mixtures

Panels are made of EPS styrofoam according to EN 13163.

CAS number: 9003-53-6 EC number: — Index number: — Registration number: —	polystyrene substance is not classified as hazardous	80 - 95 %
CAS number: 109-66-0 EC number: 203-692-4 Index number: 601-006-00-1 Registration number: —	pentane[1)] Flam. Liq. 2 H225, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066[2)]	< 10 %
CAS number: 78-78-4 EC number: 201-142-8 Index number: 601-085-00-2 Registration number: —	isopentane[1)] Flam. Liq. 1 H224, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066[2)]	< 2.5 %

[1)] Substance with a specific value at the Community level of the permissible concentration in the work environment.

[2)] Additional hazard statement code

Full text of each relevant H phrase is given in section 16 of sds.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: wash out the contaminated skin with plenty of water and soap. Consult a doctor if disturbing symptoms appear.

Eye contact: exposure by this route is usually not expected. However, if sharp elements get into the eyes wash with plenty of water or saline solution, e.g. 0.9% NaCl or 5% glucose. Consult a doctor.

Ingestion: exposure by this route is usually not expected. In case of ingestion rinse mouth with water, do not induce vomiting. Consult a doctor immediately.

Inhalation: remove casualty to fresh air, keep the victim warm and calm. Consult a doctor, if disturbing symptoms appear.

4.2 Most import ant symptoms and effects, both acute and delayed

No reports of effects or critical hazards when properly used.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO_2, extinguishing powder, foam, water spray. Adapt the extinguishing media to the surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

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5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce harmful gases of carbon oxides, styrene and other unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

Flammable product, however contains substances reducing its flammability - retardants (fire inhibitors). Product does not sustain spreading of fire when the source of ignition is removed. Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Collect the used extinguishing media.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Handle in accordance with good occupational hygiene and safety practices. Ensure that effects of the breakdown are removed by a trained personnel only. Use personal protective equipment appropriate to the potential hazards. Ensure adequate ventilation.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Collect mechanically and transfer to re-use or treat as waste. Clean the contaminated place.

6.4 Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Use personal protective equipment. Before break and after work wash hands carefully. Use in accordance with the identified purpose. System panels should be protected against contact with substances containing solvents and their vapours because they have a destructive effect on polystyrene. During the process of installation panels should be protected against damage. If panels get wet it is required to dry it before installation. Before laying system panels it should be ensured dense, smooth, load-bearing, dry, clean substrate without adhesion-reducing layers such as fat, dust, dirt and other impurities, which should be removed and leveled by using filling compound or leveling mortar.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in a dry and cool area protected against weather conditions (direct expose to sunlight, frost, atmospheric precipitation, etc.). Protect from sources of fire and open flame. Do not store or use with incompatible materials (see section 10.3-10.5).

Storage stacks should be arranged while maintaining safe space, in order to minimise the risk of product damage caused by hitting by e.g., forklifts operating in the vicinity and to avoid accumulation of flammable foaming agent residues in the warehouse area. Do not store with food and feed for animals.

7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

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Section 8: Exposure controls/personal protection

8.1 Control parameters

Specification	TWA 8 hour		STEL 15 minutes	
pentane [CAS 109-66-0]	3000 mg/m^3	1000 ppm	—	—
isopentane [CAS 78-78-4]	3000 mg/m^3	1000 ppm	—	—

Legal Basis: Commission Directive 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU

The table above shows the maximum workplace concentration values in the European Union level.

Please check any national occupational exposure limit values in your country.

Product contains the components with the occupational exposure limit values in the workplace at European Union level, however due to the product's form it is not necessary to control their concentrations.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when working. Before break and after work wash hands carefully. In case the heat treatment or processes in high temperatures are necessary, suitable extinguishing agents should be stored in close proximity to the workplace.

Individual protection measures, such as personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand and body protection

Use protective gloves (EN 374) for protection against mechanical and thermal risks. Wear working clothes and footwear.

Eye/face protection

If there is a risk of eye contamination protective glasses (EN 166) are recommended.

Respiratory protection

Not required under normal conditions of work. In case of works conducted in contained area, or large emission of product particles, e.g., during cutting, use respiratory tract protection equipment.

Thermal hazards

Do not occur.

Environmental exposure controls

Do not allow to get the large amount of the product to ground waters, drains, canalization or soil.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid/panels
Colour:	acc. assortment
Odour:	odourless
Melting point/freezing point:	not determined

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Sąd Rejonowy dla Wrocławia-Fabrycznej, IX Wydział Gospodarczy Krajowego Rejestru Sądowego | KRS: 0000708604 | BDO: 000009786 | Kapitał Zakładowy 1.100.000,00 zł

Boiling point or initial boiling point and boiling range:	not applicable
Flammability:	reaction to fire class E or F
Lower and upper explosion limit:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not applicable
Kinematic viscosity:	not applicable, solid
Solubility:	insoluble in water, soluble in acetone and organic solvents
Partition coefficient n-octanol/water (log value):	not determined
Vapour pressure:	not applicable
Density and/or relative density:	not determined
Relative vapour density:	not applicable
Particle characteristics:	not determined

9.2 Other information

No additional test results.

Section 10: Stability and reactivity

10.1 Reactivity

Product is feebly reactive. See also subsections: 10.3-10.5

10.2 Chemical stability

The product is stable under normal conditions of handling and storage.

10.3 Possibility of hazardous reactions

Solvents, solvent-based adhesives, wood preservatives can cause dissolve or swell of the product.

10.4 Conditions to avoid

Protect from humidity. Avoid direct exposure to sunlight, sources of fire, sparks, hot surfaces.

10.5 Incompatible materials

Strong oxidizing agents, solvents, wood preservatives.

10.6 Hazardous decomposition products

Hazardous decomposition products are not known.

Section 11: Toxicological information

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

Product does not pose a threat to human health or life when handle in accordance with good occupational hygiene and safety practices. Information regarding acute and/or delayed results of the exposure was defined on the basis of the information on classification of substances contained in the article and/or toxicological studies and knowledge and experience of the manufacturer.

Acute toxicity

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

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

Routes of exposure: skin contact, eye contact, inhalation, ingestion. See subsection 4.2 for more information on the effects from each possible route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics

No data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No data.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

Other information

No data.

Section 12: Ecological information

12.1 Toxicity

Harmful influence for environment is not expected when product is properly used.

12.2 Persistence and degradability

Product is not biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation is not expected due to the article's form.

12.4 Mobility in soil

Product is not mobile in soil. Mobility in water is small.

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12.5 Results of PBT and vPvB assessment

Substances contained in the mixture do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

12.6 Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

12.7 Other adverse effects

Not known.

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the local legislation. Small quantities can be disposed with household waste. Waste material should be stored in designated area for reprocessing or disposal. Waste product should be subject to recovery or disposed of in authorized incineration plants or waste disposal facilities in accordance with the local legislation.

Disposal methods for used packing: reuse/recycling/liquidation of empty containers dispose in accordance with the local legislation.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: Transport information

14.1 UN number or ID number

Not applicable. Product is not classified as hazardous during transport.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

During transport, panels should be protected against damage and adverse weather conditions such as high and low temperature, sunlight, atmospheric precipitation.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance) as amended.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Text with EEA relevance).

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission Directive 2017/164/EU of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

ADR Agreement concerning the International Carriage of Dangerous Goods by Road

15.2 Chemical safety assessment

In accordance with REACH Regulation chemical safety assessment for articles is not required.

Section 16: Other information

Full text of indicated H phrases mentioned in section 3

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Classification of aberrations and acronyms

Aquatic Chronic 2	Hazardous to the aquatic environment, chronic cat. 2
Asp. Tox. 1	Aspiration hazard cat. 1
Flam. Liq. 1, 2	Flammable liquid cat. 1, 2
STOT SE 3	Specific target organ toxicity – single exposure cat. 3
TWA	Time Weighted Average.

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STEL	Short Term Exposure Limit.
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations in the workplace where the product will be used.

Key literature references and data sources

This SDS was prepared on the basis of declaration of performance, technical sheets and data supplied by supplier, literature data, online databases as well as our knowledge and experience, taking into account current legislation.

Other data

Date of update:	13.08.2021
Version:	2.0/EN
Changes:	sections 1-16
Safety Data Sheet made by:	**THETA** Consulting Sp. z o. o. (based on manufacturer's data)

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.

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