



K-FLEX

K-FLEX MALAYSIA SDN. BHD.

Safety Data Sheet

K-FLEX K-PROTECT

Issued date: 01/11/17

Revision date: 05/10/2019

Revision No.: 02

1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY /

Commercial Name: **K-PROTECT**
Manufacturer: **K-FLEX Malaysia Sdn. Bhd.**
Lot 2752, Jalan Raja Nong,
Taman Klang Jaya,
41200 Klang, Selangor, Malaysia.
Phone Number: +603 5162 7899
Fax Number: +603 5162 3799
Emergency Telephone Number: +603 5162 7899 (9.00 – 17.00 hours)

In case of accident, locate the nearest antipoinson centres in the following link:
WHO <http://apps.who.int/poisoncentres/>

2 HAZARDS IDENTIFICATION

2.1. Classification of the article:

The finished product consisting of a cross linked polyethylene foam, it is not considered dangerous and has no risk factors under the conditions of its use.

It is an article according to REACH Regulation No. 1907/2006/CE and 2001/60/CE, it contains no substances included in Candidate List SVHC in quantities > 0.1%(w/w). Thus, it does not require a full SDS, according to Regulation 1907/2006/CE.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

Symbols:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

None

2.3. Other hazards

PBT / vPvB substance: none

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Identification of the substance:
Not Available.

3.2. Article/Mixtures:

Articles of cross-linked polyethylene foam in different shapes and dimensions.

4 FIRST-AID MEASURES

4.1. Description of first aid measures

4.1.1 In case of skin contact:

During the processing of the product the contact with skin is unlikely. Use protective gloves.
The product has also no special risks related to its use.

4.1.2 In case of eyes contact:

During the processing of the product the contact with eyes is unlikely. The contact with the eyes can occur through contaminated hands or dust.
Rinse immediately with plenty of water and seek medical advice.
The product has also no special risks related to its use.



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4.1.3 In case of ingestion:

Due to the shape of the product, is unlikely that the swallow occurs. The contact with the mouth can occur through contaminated hands or dust.

The product has also no special risks related to its use.

4.1.4 In case of Inhalation:

During the processing of the product, inhalation of particles and dust is unlikely.

The product has also no special risks related to its use.

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

No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment:

No known treatment to date.

5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media.

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂). Chemical dry powder. Water spray.

Extinguishing media which must not be used for safety reasons:

No data available.

5.2. Special hazards arising from the substance or mixture.

Burning smoke and fumes of carbon oxide (CO), carbon dioxide (CO₂), sulphur dioxide (SO₂) and alogens (Br, Cl).

5.3. Advice for fire-fighters.

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions.

The product does not present any risk for the environment, however, do not allow to enter soil/subsoil and the runoff into surface water or drains as a waste.

Retain contaminated washing water and dispose it.

In case of run-off into waterways, soil or drains as a waste, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up.

Washing avoiding penetration of the pigments supported by the film into soil/subsoil, the runoff into surface water or drains.

Suitable material for taking up: absorbing material, organic, sand.

Wash with compatible material

6.4. Reference to other sections

See also section 8 and 13

7 HANDLING AND STORAGE

7.1. Precautions for safe handling

The product can be handled without special precautions in the conditions required for its use.

However, avoid contact with skin and eyes through contaminated hands or dust.



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Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

- 7.2. Conditions for safe storage, including any incompatibilities
 - 7.2.1 Storage class (Germany only): LGK 13 non-flammable solid.
Keep away from food, drink and feed.
 - 7.2.2 Incompatible materials:
Strong oxidizers and acids.
 - 7.2.3 Instructions about storage premises:
Adequately ventilated premises.
- 7.3. Specific end use(s)
Cross linked polyethylene foam for thermal insulation.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. Control parameters
 - None.
 - DNEL Exposure Limit Values
Not Available.
 - PNEC Exposure Limit Values
Not Available.
- 8.2. Exposure controls
 - 8.2.1 Eye protection:
Goggles. Operate according good working practices.
 - 8.2.2 Protection for skin:
Full suite. Operate according good working practices.
 - 8.2.3 Protection for hands:
Disposable gloves. Operate according good working practices.
 - 8.2.4 Respiratory protection:
Not needed for normal use. During the processing of the product the inhalation of the product and dust unlikely. Anyway, operate according good working practices.
 - 8.2.5 Thermal Hazards:
Self-extinguishing.
Euroclass B.
 - 8.2.6 Environmental exposure controls:
Local exhaust and general ventilation.

9 PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. Information on basic physical and chemical properties
 - Appearance and colour: Beige / Gray
 - Odour: characteristic
 - Melting point (°C): @>90 Degrees Celsius
 - Water solubility: insoluble
 - Density: 30 kg/m³ ± 10%
 - Boiling Point (°C): >300°C
 - Vapour pressure @ 25°C (kpa): NA
 - Flash point: > 150°C
- 9.2. Other information
None

10 STABILITY AND REACTIVITY

- 10.1. Reactivity
Stable under normal conditions.



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- 10.2. Chemical stability
Stable under normal conditions.
- 10.3. Possibility of hazardous reactions
Reaction may occur with strong oxidizing agent.
- 10.4. Conditions to avoid
Eliminate ignition sources.
- 10.5. Incompatible materials
Strong mineral acids (nitric acid, hydrochloric acid, sulfuric acid, hydrofluoric acid), bromine, chlorine, hydrogen peroxide, aniline, benzene, chloroform, Freon 11, fuel FAM, carbon tetrachloride, trichloroethylene and xylene (reaction moderate or intensive).
Avoid contact with strong oxidants.
- 10.6. Hazardous decomposition products
Decomposition products in case of fire: carbon oxide (CO), carbon dioxide (CO₂), and alogens (Br, Cl).

11 TOXICOLOGY INFORMATION

- 11.1. Information on toxicological effects
Toxicological information of the article:
Not Available.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as not available:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

12 ECOLOGICAL INFORMATION

- 12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment as a waste.
Ecotoxicological information of the article:
Not Available.
- 12.2. Persistence and degradability
Not Available.
- 12.3. Bioaccumulative potential
Not Available.
- 12.4. Mobility in soil
Not Available.
- 12.5. Results of PBT and vPvB assessment
None
- 12.6. Other adverse effects
None known to date.

13 DISPOSAL INFORMATION



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13.1. Waste treatment methods

Waste disposal according to local waste disposal regulation.

Preferebly waste disposal in landfill (solid waste).

For this product incineration is not recommended (due to the release of decomposition products)

List I of Directive 76/464/EEC: Water pollution by discharges of certain dangerous substances.

Directive 80/68/EEC: on the protection of groundwater against pollution caused by certain dangerous substances.

14 TRANSPORT INFORMATION

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not classified as dangerous in the meaning of transport regulations.

14.3. Transport hazard class(es)

Not classified as dangerous in the meaning of transport regulations.

14.4. Packing Group

Not classified as dangerous in the meaning of transport regulations.

14.5. Environmental hazards

Not classified as dangerous in the meaning of transport regulations.

14.6. Special Precautions for User

Not classified as dangerous in the meaning of transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not classified as dangerous in the meaning of transport regulations.

15 REGULATORY INFORMATION

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

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Directive (EC) n. 1999/45

Regulation (EC) n. 790/2009 (ATP 1 CLP)

Regulation (EU) n. 453/2010 (Annex I)

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Where applicable, refer to the following regulatory provisions:

Directive 76/464/EEC: Water pollution by discharges of certain dangerous substances

Directive 80/68/EEC: on the protection of groundwater against pollution caused by certain dangerous substances

VOC Regulations:

French Regulation DEVL1101903: VOC emission class A+

Compliance of AgBB/DIBt German Requirement of 2012

Compliance of the Belgium Royal Decree to the indoor environment from construction product of 2012

15.2. Chemical Safety Assessment

No

16 OTHER INFORMATION

Based on the information received from suppliers, the product is an article according to REACH Regulation No. 1907/2006/CE and 2001/60/CE. It contains no substances included in Candidate List SVHC (Substances of Very High Concern) in quantities $\geq 0.1\%$ (w/w).

Thus, according to Regulation No. 1907/2006/CE a full MSDS (Material Safety Data Sheet) is not necessary and it cannot be issued for articles free of SVHC substances.

It is declared the presence, in the finished product, of accelerating and blowing substances (CoRAP and SVHC list) in traces ($<0.1\%$)



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According to Article 33 of the REACH Regulation No. 1907/2006, any changes regarding the presence of SVHC will be promptly notified.

Sections changed since the previous version:

SECTION 1
SECTION 15
SECTION 16

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECHA database
GESTIS Database
ACGIH Publication of 2012

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
PNEC: Predicted No Effect Concentration.
LGK: Storage classes (Germany only)
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8hour day. (ACGIH Standard).
WGK: German Water Hazard Class.