Kalix® 2945 BK 000 HFFR

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

1.1 Product identifier

- Trade name Kalix® 2945 BK 000 HFFR

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

Uses of the Substance/Mixture

- Plastics industry

1.3 Details of the supplier of the safety data sheet

Company

SYENSQO KOREA Co. Ltd.
150, BUGAHYEON-RO, SEODAEMUN-GU
SEOUL, 03759, KOREA
Tel: +82-2-21255400
Fax: +82-2-21255381

E-mail address

For questions about SDS content: manager.sds@syensqo.com
For all other topics use: www.syensqo.com/en/form/documentation

1.4 Emergency telephone number

+82 (0)234 798 401 [CareChem 24] (South Korea in country number)
MULTI LINGUAL EMERGENCY NUMBER (24/7)
Europe/Latin America/Africa:+44 1235 239 670 (UK)
Middle East/Africa speaking Arabic: +44 1235 239 671 (UK)
Asia Pacific : +65 3158 1074 (Singapore)
China : 400 120 6011 (toll-free, access from China only)
North America : +1 800 424 9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Standards for classification and labeling of chemical substances and material safety data sheet (Ministry of Employment and Labor Public Notice)

- Not classified as hazardous product under the regulation above.

2.2 Label elements

Standards for classification and labeling of chemical substances and material safety data sheet (Ministry of Employment and Labor Public Notice)

Pictogram
- Not applicable

Signal word
- Not applicable

Hazard statements
- Not applicable

Precautionary statements

General
- Not applicable

Prevention
- Not applicable

Response
- Not applicable

Storage
- Not applicable

Disposal
- Not applicable

2.3 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Information on Components and Impurities

Chemical name	CAS-No.	Identification number	GHS Classification	Concentration [%]
Aliphatic Polyamide	*****	*****	Not classified	>= 20 - <= 30
Organophosphorus salt	*****	*****	Not classified	>= 10 - <= 20
Polyarylamide	25718-70-1	KECI Number: KE-19066	Not classified	>= 10 - <= 20
Carbon Black	1333-86-4	KECI Number: KE-04682	Not classified	>= 0.3 - <= 0.5
Continuous filament glass fibre (D> 6 µm)	65997-17-3	KECI Number: KE-17630	Not classified	>= 40 - < 50

- For classified products, any component not described above is non-classified, or otherwise its content is less than the cut-off values.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation

- If symptoms persist, call a physician.

In case of skin contact

- Wash off with soap and water.
- Wash contaminated clothing before re-use.
- If symptoms persist, call a physician.

Cool skin rapidly with cold water after contact with hot polymer.

- Do not peel polymer from the skin.
- Obtain medical attention.

In case of eye contact

- Flush eyes with running water for several minutes, while keeping the eyelids wide open.
- If eye irritation persists, consult a specialist.

In case of ingestion

- Never give anything by mouth to an unconscious person.
- If a large amount is swallowed, get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Effects

- Mechanical irritation from the particulates generated by the product.
- Thermal decomposition can lead to release of hazardous gases and vapors

In case of skin contact

Effects

- Mechanical irritation from the particulates generated by the product.

In case of eye contact

Effects

- Mechanical irritation from the particulates generated by the product.

In case of ingestion

Effects

- Low ingestion hazard.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

- powder
- Foam
- Water
- Water spray
- Carbon dioxide (CO2)

Unsuitable extinguishing media

- None known.

5.2 Special hazards arising from the substance or mixture

- Combustible material
- In a fire, the polymer melts, producing droplets which may propagate fire.
- Once started, a fire will tend to self extinguish (see section 9).
- Heating can release hazardous gases.

r firefighters

Special protective equipment for firefighters

- In the event of fire, wear self-contained breathing apparatus.
- Fire fighters must wear fire resistant personnel protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

- Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders

- Sweep up to prevent slipping hazard.
- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

- Should not be released into the environment.
- The product should not be allowed to enter drains, water courses or the soil.

6.3 Methods and materials for containment and cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Avoid dust formation.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Take measures to prevent the build up of electrostatic charge.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Use only equipment and materials which are compatible with the product.
- To avoid thermal decomposition, do not overheat.

Hygiene measures

- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Keep container tightly closed.
- Keep away from heat and sources of ignition.
- Keep away from open flames, hot surfaces and sources of ignition.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.
- Do not smoke.
- Refer to protective measures listed in sections 7 and 8.

7.3 Specific end use(s)

- For further information, please contact:
- Supplier

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with national occupational exposure limits

Components	Value type	Value	Basis
Particulates not otherwise regulated (no more than 1% crystalline silica)	TWA	10 mg/m3	Occupational Exposure Limits Korea
	Sufficient evidence of carcinogenicity in humans, If silica content is more than 0.1%		
Continuous filament glass fibre (D> 6 µm)	TWA	5 mg/m3	Occupational Exposure Limits Korea
	Form of exposure : Dust		
Continuous filament glass fibre (D> 6 µm)	TWA	0.2 fibres per cubic centimeter	Occupational Exposure Limits Korea
	Form of exposure : Fibre, respirable fraction Sufficient evidence of carcinogenicity in test animals or limited evidence of carcinogenicity in both animal and human testing.		
Continuous filament glass fibre (D> 6 µm)	TWA	10 mg/m3	Occupational Exposure Limits Korea
	Form of exposure : fibres Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1		

Components with other occupational exposure limits

Components	Value type	Value	Basis
Particles (insoluble or poorly soluble) not otherwise specified	TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : Inhalable particulate matter		
Particles (insoluble or poorly soluble) not otherwise specified	TWA	3 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : Respirable particulate matter		
Continuous filament glass fibre (D> 6 µm)	TWA	1 fibres per cubic centimeter	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : fibres		

Continuous filament glass fibre (D> 6 µm)	TWA	5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : Inhalable particulate matter		
Continuous filament glass fibre (D> 6 µm)	TWA	0.2 fibres per cubic centimeter	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : fibres		

8.2 Exposure controls

Control measures

Engineering measures
- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.

Individual protection measures

Respiratory protection
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Use only respiratory protection that conforms to international/ national standards.

Hand protection
- When handling hot material, use heat resistant gloves.

Eye protection
- Safety glasses with side-shields
- Dust proof goggles, if dusty.

Skin and body protection
- Long sleeved clothing

Hygiene measures
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

Protective measures
- When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Form	pellets
Colour	black
Odour	odourless
Odour Threshold	No data available
Melting point/freezing point	Melting point/ range: 220 °C
Initial boiling point and boiling range	Boiling point/boiling range: Not applicable
Flammability (solid, gas)	May form combustible dust concentrations in air, The product is not flammable.

Flammability (liquids)	No data available
Flammability/Explosive limit	No data available
Flash point	Not applicable
Auto-ignition temperature	No data available
Decomposition temperature	> 300 - 310 °C Extended period of exposure (ca. 1 hour).
pH	Not applicable
Viscosity	No data available
Solubility	Water solubility: negligible
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure	Not applicable
Density	No data available
Relative density	No data available
Relative vapor density	Not applicable
Particle characteristics	No data available
Evaporation rate (Butylacetate = 1)	No data available

9.2 Other information No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal conditions.

10.3 Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

polymerisation
- Hazardous polymerisation does not occur.

10.4 Conditions to avoid

- Heat, flames and sparks.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.

10.5 Incompatible materials

- If polyacetal and polyoxymethylene resin is molded or handled in your equipment, this material can rapidly decompose at the temperatures used to process this resin. Inadvertent contamination of this resin with polyacetal resin from the material handling system of other equipment can result in a rapid, possibly violent, release of decomposition fumes when the contaminated material is brought to molding temperature. To avoid, thoroughly clean molding equipment with purging compound prior to product changeover and prevent cross contamination of material handling systems.

10.6 Hazardous decomposition products

- Carbon monoxide
- Ammonia
- Aldehydes
- Nitriles
- Nitrogen oxides (NOx)
- The release of other hazardous decomposition products is possible.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	No data available
Acute inhalation toxicity	No data available
Acute dermal toxicity	No data available
Acute toxicity (other routes of administration)	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available

Mutagenicity

Genotoxicity in vitro	No data available
Genotoxicity in vivo	No data available
Carcinogenicity	No data available

Toxicity for reproduction and development

Toxicity to reproduction/Fertility	No data available
Developmental Toxicity/Teratogenicity	No data available

STOT

STOT - single exposure	No data available
STOT - repeated exposure	No data available
Experience with human exposure	No data available
Aspiration toxicity	No data available
Further information	Because the components are encapsulated in the resin and may not be bioavailable in the body, they may not exert the above mentioned health effects. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	No data available
Acute toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to aquatic plants	No data available
Toxicity to microorganisms	No data available

Chronic toxicity to fish	No data available
Chronic toxicity to daphnia and other aquatic invertebrates	No data available

12.2 Persistence and degradability

Abiotic degradation	No data available
Physical- and photo-chemical elimination	No data available
Biodegradation	No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water	No data available
Bioconcentration factor (BCF)	No data available

12.4 Mobility in soil

Adsorption potential (Koc)	No data available
Known distribution to environmental compartments	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 Disposal

- In accordance with local and national regulations.
- Waste characterizations and compliance with applicable laws and regulations are the responsiblity of the waste generator.
- Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.
- Can be landfilled or incinerated, when in compliance with local regulations.

- Do not dispose of waste product into drains or watercourses.

Advice on cleaning and disposal of packaging

- Empty containers.
- Dispose of as unused product.
- For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device or industrial landfill.

SECTION 14: Transport information

KR_DG
not regulated

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

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

Occupational Safety and Health Act

Harmful Substances Prohibited from Manufacturing
Not applicable

Harmful Substances Required Permission for Manufacture
Not applicable

Controlled Hazardous Substances
Not applicable

Substances subject to Special Control
Not applicable

Controlled Substances Subject to Environment Monitoring

Chemical name	CAS-No.	Threshold limits
Glass fibers	65997-17-3	>= 0 %

Controlled Substances Subject to Health Examination

Chemical name	CAS-No.	Threshold limits
Glass fiber dusts	65997-17-3	>= 0 %

Please refer to Chapter 8 and 13 for the OEL and disposal

AREC (K-REACH) and Chemicals Control Act

Toxic Substances
Not applicable

Restricted Substances
Not applicable

Prohibited Substances
Not applicable

Toxic Release Inventory
Not applicable

Substances Requiring Preparation for Accidents
Not applicable

Safety Control of Dangerous Substances Act

Safety Control of Dangerous Substances Act	Not Applicable to Dangerous Materials
Wastes Control Act	Industrial waste Follow article 13 of the act to dispose the product waste

Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed as active on the TSCA inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- In compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC)	- In compliance with the inventory
Australian Inventory of Industrial Chemicals (AIIC)	- One or more components not listed on inventory
Canadian Domestic Substances List (DSL)	- One or more components not listed on inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- One or more components not listed on inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Syensqo legal entity based in the EEA (""European" "Economic Area""), this product is compliant with the registration" provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

- TWA: Time Weighted Average
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Sources of key data used to compile the Safety Data Sheet

- Information derived from practical experience.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. The information exclusively relates to the designated product in its unaltered state. Safety and health hazards may change if such product is used in combination with other materials or in any other manufacturing process. Users are responsible for compliance with all regulations linked to product related activities, and to use the products in accordance with technical instructions given by Syensqo, if any.