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**1: Identification****1.1 Product identifier****Trade name:** DAI-EL BRE GBR-6002, GBR-6005**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

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**2: Hazard(s) identification****Classification according to Regulation (EC) No 1272/2008**

The substance is not classified according to the CLP regulation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008** Void**Signal word** Void**Hazard statements** Void**NFPA ratings (scale 0 - 4)****HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

**3: Composition/information on ingredients****Chemical Characterization:**

1034381-22-0 1-Propene, 2,3,3,3-tetrafluoro-, polymer with 1,1-difluoroethene

100%

**4: First-aid measures****4.1 Description of first aid measures****General information:** Seek medical treatment.**After inhalation:** In case of inhaling decomposed gases: supply fresh air and consult a doctor in case of complaints.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product away from the skin.

Consult a doctor in case of complaints.

**After eye contact:**

Rinse opened eye for several minutes under running water.

Consult an ophthalmologist in case of complaints.

**After swallowing:** If symptoms persist consult doctor.**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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**4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5: Fire-fighting measures

**5.1 Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents:** No further information available.

**5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

**5.3 Advice for firefighters**

**Protective equipment:**

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

### 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Keep out unauthorized persons.

Wear appropriate protective devices (See Section 8 Exposure Controls/ Personal Protection).

Avoid contact with eyes and skin.

Do not swallow the product.

**6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.

**6.3 Methods and material for containment and cleaning up:** Pick up mechanically.

**6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7: Handling and storage

**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Extractors are required on all machines used for thermal processing or splinter removal processes.

Do not handle until all safety precautions have been read and understood.

**Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Keep receptacle tightly sealed.

**Information about storage in one common storage facility:**

See section 10 for information on incompatible materials.

**Further information about storage conditions:**

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

**7.3 Specific end use(s)** No further relevant information available.

### 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see item 7.

**8.1 Control parameters** No further information available.

**Components with limit values that require monitoring at the workplace:** Not required.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

Keep away from tobacco products.

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**Breathing equipment:**

Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases), if the product is heated above 200 °C and toxic gases is formed.

A NIOSH approved air purifying organic vapor/acid gas cartridge respirator with P100 particulate pre-filters is recommended when processing this material.

**Protection of hands:**



Protective gloves

Material of gloves Rubber gloves

**Eye protection:**



Safety glasses

Body protection: Protective work clothing

### 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Solid material
<b>Color:</b>	Whitish
<b>Odor:</b>	Odorless
<b>pH-value:</b>	No further information available.
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
<b>Flash point:</b>	Not applicable.
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapor pressure:</b>	Not applicable.
<b>Density:</b>	Not determined.
<b>Solubility in / Miscibility with Water:</b>	Insoluble.

**Partition coefficient (n-octanol/water):** No further information available.

**9.2 Other information** No further relevant information available.

### 10: Stability and reactivity

**10.1 Reactivity**

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.

**10.3 Possibility of hazardous reactions** No dangerous reactions known under normal conditions of use.

**10.4 Conditions to avoid** Keep away from heat, sparks, flame, high temperature.

**10.5 Incompatible materials:**

Metal powder (e.g. Al, Mg) and fluorine oxidizer. There is a danger of chemical reactions that could cause fire or explosion when the product is heated with them.

**10.6 Hazardous decomposition products:**

As for decomposition products, particulate matters and extremely toxic/corrosive fumes may be generated (HF, carbonyl fluoride, monomers, perfluoroisobutylene).

Decomposition products differ depending on the temperature and conditions.

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### 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity:

**LD/LC50 values that are relevant for classification:** No further information available.

##### Primary irritant effect:

**on the skin:** No further information available.

**on the eye:** No further information available.

**Sensitization:** No sensitizing effect.

**Subacute to chronic toxicity:** No further information available.

##### Additional toxicological information:

The substance is not subject to classification.

##### General effects:

Fumes generated during burning may cause "polymer fume fever" (flu-like symptoms such as fever, chill, cough).

This may last for a whole day and night.

Fumes are not absorbed in skin. No sensitizing effect known.

##### Effects of hydrogen fluoride:

Low concentration of hydrogen fluoride may cause feeling of dyspnea, cough, irritation in eyes, nose, throat, fever, chill for 1-2 days.

After that, dyspnea, cyanosis and pulmonary edema may be seen.

High concentration of hydrogen fluoride damages liver and kidney.

##### Effects of carbonyl fluoride:

**Skin:** Irritation or eruption

**Eye:** Ulcer in cornea, conjunctiva

**Respiratory system :** Irritation

**Lung:** Temporary symptoms such as cough, pain, dyspnea

Persons who have experienced lung diseases are vulnerable to toxicity caused by excessive exposure to pyrolysis products

##### Carcinogenic categories

**IARC (International Agency for Research on Cancer)**

Substance is not listed.

**NTP (National Toxicology Program)**

Substance is not listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

### 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

#### 12.5 Results of PBT and vPvB assessment

**PBT:** No further relevant information available.

**vPvB:** No further relevant information available.

**12.6 Other adverse effects** No further relevant information available.

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### 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Recommendation:

Landfill disposal is recommended.

In case of incineration, the temperature must be higher than 800 °C.

Treat exhaust gas such as HF in a suitable way.

Disposal must be made according to official regulations.

##### Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

### 14: Transport information

#### 14.1 UN-Number

DOT, ADR, ADN, IMDG, IATA not regulated

#### 14.2 UN proper shipping name

DOT, ADR, ADN, IMDG, IATA not regulated

#### 14.3 Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA

Class not regulated

#### 14.4 Packing group

DOT, ADR, IMDG, IATA not regulated

#### 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.

#### Transport/Additional information:

Avoid direct sunlight. Make sure of no damage, corrosion, leaks on the receptacles.

Take necessary measures for preventing cargo shift.

#### UN "Model Regulation":

-

### 15: Regulatory information

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

##### Sara

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

##### Proposition 65

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

##### Carcinogenic categories

EPA (Environmental Protection Agency)

Substance is not listed.

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**TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

**MAK (German Maximum Workplace Concentration)**

Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

**National regulations:** No further information available.

**Other regulations, limitations and prohibitive regulations**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

**REACH SVHC:** This product does not contain intentionally added (meaning deliberate use in the formulation of a product or subpart where its continued presence is desired to provide a specific characteristic, appearance or quality) materials which are listed on the REACH Substances of Very High Concern (SVHC) list.

**RoHS:** This product does not contain intentionally added lead, mercury, cadmium, PBB (polybrominated biphenyl) or PBDE (polybrominated diphenyl ether); unintentionally added (tract) amounts of lead, mercury, hexavalent chromium, PBB (polybrominated biphenyl), or PBDE (polybrominated diphenyl ether) in amounts greater than 1000 ppm (0.1% by weight) per homogenous material (substance or mixture of substances with uniform composition such as solders, resins, platings, etc.); cadmium in amounts greater than 75 ppm per homogenous material.

**Declaration of Allergens:** Based upon the information provided by Daikin America Inc.'s suppliers, none of the constituent parts used by Daikin America Inc. in the manufacture of this product were made with peanuts, tree nuts, fish, shell fish, eggs, milk, wheat or soy (or ingredients derived from these products).

**Animals or Animal Bi-products:** Based on a comprehensive investigation, no animals or animal bi-products are used in the manufacturing process. Please note that we do not investigate the contents of peripherals and/or package accessories.

**Human or Human Bi-products:** Based on a comprehensive investigation, no human or human bi-products are used in the manufacturing process. Please note that we do not investigate the contents of peripherals and/or package accessories.

**Absence of PFOA:** This product does not contain intentionally added PFOA (perfluorooctanoic acid).

**Other:** State and local regulations may have specific requirements for this product or components of this product; consult specific state and local regulatory requirements for additional information.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing SDS:** EHS Department

**Contact:** <http://www.daikin.com/>

**Abbreviations and acronyms:**

**RID:** Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

**ICAO:** International Civil Aviation Organisation

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

**IMDG:** International Maritime Code for Dangerous Goods

**DOT:** US Department of Transportation

**IATA:** International Air Transport Association

**GHS:** Globally Harmonised System of Classification and Labelling of Chemicals

**ACGIH:** American Conference of Governmental Industrial Hygienists

**NFPA:** National Fire Protection Association (USA)

**HMIS:** Hazardous Materials Identification System (USA)

**LC50:** Lethal concentration, 50 percent

**LD50:** Lethal dose, 50 percent