Safety data sheet

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

1.1 Product identifier

Trade name: DAI-EL PERFLUOR GA-500001
Article number: GA500001 STD
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:
DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION:
Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome, Kita-Ku, Osaka, JAPAN
Phone: (+81) 6-6373-4345 Fax: (+81) 6-6373-4281

Further information obtainable from: http://www.daikin.com/
1.4 Emergency telephone number:
Japan: +81-6-6349-7521
China: +86-512-5-232-0949, +86-21-34151689
South Korea: +82-2-568-1722
Americas: CHEMTREC +1-800-424-9300 (Outside US/Canada: +1-703-527-3887)
Europe: +49-211-179 225-0

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
The substance is not classified, according to the CLP regulation.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008: Not applicable
Signal word: Not applicable

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SECTION 3: Composition/information on ingredients

Information on ingredients:

Fluoroelastomer	> 95%
Others	< 5%

SECTION 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 off the skin.
Immediately rinse with warm water and soap.
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 a doctor.
4.2 Most important symptoms and effects, both acute and chronic: No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: Use fire extinguishing methods suitable for surrounding conditions.
For safety reasons unsuitable extinguishing agents: No further information available.

Safety data sheet

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:
Wear self-contained breathing apparatus and protective suit.
Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation before entering the area.
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.

SECTION 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 powder handling processes.
Do not handle until all safety precautions have been read and understood.
Information about fire - and explosion protection: *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 and dry location.*
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 containers in a well ventilated area.
7.3 Specific end use(s): *No further relevant information available.*

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters *No further information available.*
Ingredients with limit values that require monitoring at the workplace: *Not required.*

8.2 Exposure controls
Appropriate engineering controls *No further data; see item 7.*
Individual protection measures, such as 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.
Respiratory protection:
Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases) if formation of toxic gases is possible while the product is heated.
Dust respirator, simplified dust respirator
Hand protection

Protective gloves

Material of gloves: *Rubber*

Safety data sheet

Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye/face protection

Safety glasses

Body protection: *Protective work clothing*

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	*Solid*
Colour:	*Milky-white*
Odour:	*Odourless*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*No further information available.*
Boiling point or initial boiling point and boiling range	*No further information available.*
Flammability	*Product is not flammable.*
Lower and upper explosion limit	
Lower explosive limit:	*No further information available.*
Upper explosive limit:	*No further information available.*
Flash point:	*Not applicable.*
Decomposition temperature:	*No further information available.*
pH	*No further information available.*
Viscosity:	
Kinematic viscosity	*Not applicable.*
Dynamic:	*Not applicable.*
Solubility	
water:	*Insoluble.*
Partition coefficient n-octanol/water (log value)	*No further information available.*
Vapour pressure:	*No further information available.*
Density and/or relative density	
Density:	*No further information available.*
Relative density	*Not determined.*
Vapour density	*Not applicable.*
Particle characteristics	*No further relevant information available.*

9.2 Other information:

Appearance	
Form:	*Sheet*
Auto-ignition temperature:	*Not determined.*
Explosive properties:	*Product does not present an explosion hazard.*
Evaporation rate	*Not applicable.*

Information with regard to physical hazard classes

Explosives	*Not applicable*
Flammable gases	*Not applicable*
Aerosols	*Not applicable*
Oxidising gases	*Not applicable*
Gases under pressure	*Not applicable*
Flammable liquids	*Not applicable*
Flammable solids	*Not applicable*
Self-reactive substances and mixtures	*Not applicable*
Pyrophoric liquids	*Not applicable*
Pyrophoric solids	*Not applicable*
Self-heating substances and mixtures	*Not applicable*

Safety data sheet

Substances and mixtures, which emit flammable gases in contact with water	Not applicable
Oxidising liquids	Not applicable
Oxidising solids	Not applicable
Organic peroxides	Not applicable
Corrosive to metals	Not applicable
Desensitised explosives	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
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.
Organic iodine compounds such as methyl iodide may be generated when iodine which becomes a crosslinking point reacts with decomposed products of organic peroxide.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Based on available data, the classification criteria are not met.
LD/LC50 values relevant for classification: No further information available.
Skin corrosion/irritation No further information available.
Serious eye damage/irritation No further information available.
after inhalation: No further information available.
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.
Other information (about experimental toxicology): No further information available.
Subacute to chronic toxicity No further information available.
Additional toxicological information:
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

Safety data sheet

products
11.2 Information on other hazards
Endocrine disrupting properties

None of the ingredients is listed.

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SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: *No further relevant information available.*
12.2 Persistence and degradability: *The product is thought to be non-biodegradable.*
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 Endocrine disrupting properties *For information on endocrine disrupting properties see section 11.*
Ecotoxical effects: *no data*

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation:
Landfill disposal is recommended.
In case of incineration, the temperature must be higher than 800 ℃.
Treat exhaust gas such as HF in a suitable way.
Disposal must be made according to official regulations.

Uncleaned packaging
Recommendation: *Disposal must be made according to official regulations.*

SECTION 14: Transport information

14.1 UN number or ID number	
ADR, ADN, IMDG, IATA	*Not applicable*
14.2 UN proper shipping name:	
ADR, ADN, IMDG, IATA	*Not applicable*
14.3 Transport hazard class(es):	
ADR, ADN, IMDG, IATA	
Class:	*Not applicable*
14.4 Packing group:	
ADR, IMDG, IATA	*Not applicable*
14.5 Environmental hazards:	
Marine pollutant:	*No*
14.6 Special precautions for user:	*Not applicable.*
14.7 Maritime transport in bulk according to IMO instruments	*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":	*Not applicable*

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.
Labelling according to Regulation (EC) No 1272/2008 *Not applicable*
Hazard pictograms *Not applicable*
Signal word *Not applicable*
Hazard statements *Not applicable*

Safety data sheet

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

SECTION 16: Other information

The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for health-care application or food/feed application, consult us in advance.
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:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
**** Data compared to the previous version altered.***