Safety data sheet

Printing date 15.03.2023 Version number 1 Revision: 15.03.2023

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

1.1 Product identifier

Trade name: POLYFLON PTFE TC-7409BK

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

Sector of Use SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION:
OSAKA UMEDA TWIN TOWERS SOUTH, 1-13-1 Umeda, Kita-ku, Osaka-shi, Osaka, 530-0001, Japan
Phone:+81-6-6147-9702 Fax:+81-6-6147-9807

Further information obtainable from: http://www.daikin.com/

1.4 Emergency telephone number:

Japan: +81-6-6349-7521
China: +86-532-8388-9090, +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

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:
The product is classified and labelled according to the CLP regulation.
Signal word: Danger

Hazard-determining components of labelling:
Binder
Reaction mass of ethylbenzene and xylene
Phthalic anhydride
Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: POLYFLON PTFE TC-7409BK

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SECTION 3: Composition/information on ingredients

Information on ingredients:

CAS: 9002-84-0	*Polytetrafluoroethylene*	*<5%*
	Fluoropolymer	*5-15%*
	Binder *Aquatic Chronic 2, H411* *Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317* *Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 %* *Skin Irrit. 2; H315: C ≥ 5 %*	*10-20%*
CAS: 1333-86-4	*Carbon black*	*< 5%*
CAS: 108-10-1	*Methyl isobutyl ketone* *Flam. Liq. 2, H225* *Carc. 2, H351* *Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H336* *EUH066* *ATE: LC50/4h inhalative: 11 ppm*	*35-45%*
CAS: 112-34-5	*2-(2-Butoxyethoxy)ethanol* *Eye Irrit. 2, H319*	*5-15%*
CAS: 123-42-2	*4-Hydroxy-4-methylpentan-2-one* *Flam. Liq. 3, H226* *Eye Irrit. 2, H319* *Specific concentration limit: Eye Irrit. 2; H319: C ≥ 10 %*	*<5%*
CAS: 71-23-8	*1-Propanol* *Flam. Liq. 2, H225* *Eye Dam. 1, H318* *STOT SE 3, H336*	*<5%*
CAS: 107-98-2	*1-Methoxy-2-propanol* *Flam. Liq. 3, H226* *STOT SE 3, H336*	*<5%*
CAS: 64742-94-5	*Solvent naphtha (petroleum), heavy arom.* *Asp. Tox. 1, H304*	*<5%*
CAS: 111-76-2	*2-Butoxyethanol* *Acute Tox. 3, H311* *Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319* *ATE: LD50 oral: 1200 mg/kg*	*< 5%*
	Reaction mass of ethylbenzene and xylene *Flam. Liq. 3, H226* *STOT RE 2, H373; Asp. Tox. 1, H304* *Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335* *ATE: LD50 dermal: 1100 mg/kg* *LC50/4h inhalative: 29 ppm*	*< 5%*
	Others	*< 5%*

Additional information: *For the wording of the listed hazard phrases refer to section 16.*

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SECTION 4: First aid measures

4.1 Description of first aid measures
General information: Seek medical treatment.
After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
After skin contact:
Consult a doctor in case of complaints.
Remove contaminated clothes immediately.
Immediately wash with water and soap and rinse thoroughly.
Consult a doctor in case of complaints.
After eye contact:
Immediately rinse with a lot of water for several minutes. Remove contact lenses if possible. Continue rinsing.
Consult an ophthalmologist in case of complaints.
After swallowing:
Rinse mouth with water. Do not induce vomiting.
Consult a doctor in case of complaints.
4.2 Most important symptoms and effects, both acute and chronic: Allergic reactions
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:
Foam
Fire-extinguishing powder
CO_2
For safety reasons unsuitable extinguishing agents: Water with full jet
5.2 Special hazards arising from the substance or mixture:
Formation of toxic gases is possible during heating or in case of fire.
Receptacle may explode when heated.
Extremely flammable; can ignite easily with heat, sparks, fire.
5.3 Advice for firefighters:
The flash point is extremely low: water spray can be used for a large fire only if other extinguishing means have no effect.
Remove receptacles from area of fire if possible.
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.
Stay on the windward side.
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: Prevent seepage into sewage system, workpits and cellars.
6.3 Methods and material for containment and cleaning up:
Do not flush with water or aqueous cleansing agents
For a small amount of leakage: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders) or collect in an empty container that can be sealed tightly.
For a small amount of leakage: Use clean anti-static tools when absorbing the product.
For a large amount of leakage: Enclose with banks to avoid outflow. Lead the leakage to a safe place and collect.

Remove ignition sources immediately.
Ground all equipment when the product leaks.
There is a danger of explosion. Prepare fire extinguisher in case of emergency.
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:
Prevent formation of aerosols.
Ensure good ventilation/exhaustion at the workplace.
Handle with care. Avoid jolting, friction and impact.
Do not handle until all safety precautions have been read and understood.
Information about fire - and explosion protection:
Do not weld.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use flame proof electric/lighting devices and ventilation equipment.
Ground/bond container and receiving equipment.
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.
Provide solvent resistant, sealed floor.
Prevent any seepage into the ground.
Use only receptacles specifically permitted for this substance/product.
Keep containers tightly sealed.
Information about storage in one common storage facility:
Store away from oxidising agents.
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.
Store locked up.
7.3 Specific end use(s): *No further relevant information available.*

* SECTION 8: Exposure controls/personal protection

8.1 Control parameters *No further information available.*
Ingredients with limit values that require monitoring at the workplace:

CAS: 108-10-1 Methyl isobutyl ketone
IOELV (EU) Short-term value: 208 mg/m³, 50 ppm
Long-term value: 83 mg/m³, 20 ppm

CAS: 112-34-5 2-(2-Butoxyethoxy)ethanol
IOELV (EU) Short-term value: 101.2 mg/m³, 15 ppm
Long-term value: 67.5 mg/m³, 10 ppm

CAS: 111-76-2 2-Butoxyethanol
IOELV (EU) Short-term value: 246 mg/m³, 50 ppm
Long-term value: 98 mg/m³, 20 ppm
Skin

CAS: 107-98-2 1-Methoxy-2-propanol
IOELV (EU) Short-term value: 568 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
Skin

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CAS: 1330-20-7 Xylene
IOELV (EU) Short-term value: 442 mg/m³, 100 ppm
Long-term value: 221 mg/m³, 50 ppm
Skin

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.
Use respiratory protective device with organic gas cartridge.
Hand protection


Protective gloves

Material of gloves: *Rubber*
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	*Fluid*
Colour:	*Black*
Odour:	*Characteristic*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*Undetermined.*
Boiling point or initial boiling point and boiling range	*No further information available.*
Flammability	*Not applicable.*
Lower and upper explosion limit	
Lower explosive limit:	*1.7 Vol % (MIBK)*
Upper explosive limit:	*9.0 Vol % (MIBK)*
Flash point:	*-8 °C (TCC)*
Decomposition temperature:	*No further information available.*
pH	*Not determined.*
Viscosity:	
Kinematic viscosity	*Not determined.*
Dynamic:	*Not determined.*
Solubility	
water:	*No further information available.*
Partition coefficient n-octanol/water (log value)	*No further information available.*
Vapour pressure:	*No further information available.*
Density and/or relative density	
Density:	*Not determined.*

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Relative density	Not determined.
Vapour density	Not determined.
Particle characteristics	Not applicable.

9.2 Other information:

Form:	Liquid
Auto-ignition temperature:	Product is not self-igniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Evaporation rate	Not determined.

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	

Highly flammable liquid and vapour.

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
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: Oxidizing agents
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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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:

CAS: 108-10-1 Methyl isobutyl ketone

Oral	LD50	2080 mg/kg (Rat)
Dermal	LD50	16000 mg/kg (Rabbit)
Inhalative	LC50/4h	8.2-16.4 mg/l (Rat)

Skin corrosion/irritation
Causes skin irritation.
Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
May cause an allergic skin reaction.
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
May cause respiratory irritation.
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 products
11.2 Information on other hazards
Endocrine disrupting properties

None of the ingredients is listed.

* SECTION 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 information available.
12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.
12.7 Other adverse effects:
Ecotoxical effects: no data
Remark: Harmful to fish
Additional ecological information:
General notes: Harmful to aquatic organisms

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation: Disposal must be made according to official regulations.

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

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* SECTION 14: Transport information

14.1 UN number or ID number
ADR, IMDG, IATA UN1263
14.2 UN proper shipping name:
ADR: 1263 PAINT
IMDG, IATA PAINT
14.3 Transport hazard class(es):

ADR

Class: 3 (F1) Flammable liquids.
Label: 3
IMDG, IATA

Class: 3 Flammable liquids.
Label: 3
14.4 Packing group:
ADR, IMDG, IATA II
14.5 Environmental hazards:
Marine pollutant: No
14.6 Special precautions for user: Warning: Flammable liquids.
Hazard identification number (Kemler code): 33
EMS Number: F-E,S-E
Stowage Category B
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.

ADR
Limited quantities (LQ): 5L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
Transport category: 2
Tunnel restriction code: D/E
IMDG
Limited quantities (LQ) 5L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation": UN1263, PAINT, 3, II

* 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
The product is classified and labelled according to the CLP regulation.

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Printing date 15.03.2023 *Version number 1* *Revision: 15.03.2023*

Trade name: POLYFLON PTFE TC-7409BK

Hazard pictograms

GHS02 GHS07

Signal word *Danger*

Hazard-determining components of labelling:
Binder
Reaction mass of ethylbenzene and xylene
Phthalic anhydride
Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
Precautionary statements
P210 *Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.*
P241 *Use explosion-proof [electrical/ventilating/lighting] equipment.*
P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*
P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
P405 *Store locked up.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*
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: *Planning Dept.*
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 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
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
**** Data compared to the previous version altered.***