

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

- **Product identifier**
- **Trade name:** POLYFLON PTFE TC-7409BK
- **Article number:** 7409BK
- **Relevant identified uses of the substance or mixture and uses advised against:**
No further relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
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2 Hazard identification

- **Classification according to Regulation (EC) No 1272/2008:**



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



Acute Tox. 4 H332 Harmful if inhaled.
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.

- **Labelling according to Regulation (EC) No 1272/2008:**

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

- **Signal word:** Danger

- **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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.

- **Additional information:**

Contains epoxy constituents. May produce an allergic reaction.

3 Composition/information on ingredients

- **Composition**

9002-84-0 Polytetrafluoroethylene	<5%
25067-11-2 FEP	5-15%
Binder	10-20%
Xi R36/38; Xi R43; N R51/53	
Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	

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1333-86-4 Carbon black	<5%
108-10-1 Methyl isobutyl ketone Xn R20; Xi R36/37; F R11 R66 Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	35-45%
111-76-2 2-butoxyethanol Xn R20/21/22; Xi R36/38 Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	1-10%
64742-94-5 Solvent naphtha (petroleum), heavy arom. Xn R65 Asp. Tox. 1, H304	1-10%
123-42-2 4-hydroxy-4-methylpentan-2-one Xi R36 Flam. Liq. 3, H226; Eye Irrit. 2, H319	<5%
71-23-8 1-propanol Xi R41; F R11 R67 Flam. Liq. 2, H225; Eye Dam. 1, H318; STOT SE 3, H336	<5%
1330-20-7 Xylene Xn R20/21; Xi R38 R10 Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	<5%
107-98-2 1-methoxy-2-propanol R10-67 Flam. Liq. 3, H226; STOT SE 3, H336	<5%
Others	5-15%

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- 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:
Immediately wash with water and soap and rinse thoroughly.
Remove contaminated clothes immediately.
- After eye contact:
Immediately rinse with a lot of water for several minutes. Remove contact lenses if possible. Continue rinsing.
- After swallowing: Rinse mouth with water. Do not induce vomiting.
- Information for doctor:
- Most important symptoms and effects, both acute and chronic: Allergic reactions
- Indication of any immediate medical attention and special treatment needed:
No further relevant information available.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
Water haze
Water spray
Fire-extinguishing powder
CO2

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Dry sand

Alcohol resistant foam

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **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.

· **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:**

Inhalation respiratory device.

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

6 Accidental release measures

· **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/ inhale the product.

· **Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.

· **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, sawdust) 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.

Prepare fire extinguisher in case of emergency.

· **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· **Handling**

· **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.

Install extractors.

· **Information about fire - and explosion protection:**

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.

· **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.

Keep receptacle tightly sealed.

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

Store away from oxidizing agents.

See section 10 for information on incompatible materials.

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Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Store locked up.

· Specific end use(s): No further relevant information available.**8 Exposure controls/personal protection****· Additional information about design of technical facilities: No further data; see item 7.****· Control parameters****· Ingredients with limit values that require monitoring at the workplace:****108-10-1 Methyl isobutyl ketone**OEL (Japan) Long-term value: 200 mg/m³, 50 ppmPEL (USA) Long-term value: 410 mg/m³, 100 ppmREL (USA) Short-term value: 300 mg/m³, 75 ppmLong-term value: 205 mg/m³, 50 ppmTLV (USA) Short-term value: 307 mg/m³, 75 ppmLong-term value: 82 mg/m³, 20 ppm

BEI

111-76-2 2-butoxyethanolPEL (USA) Long-term value: 240 mg/m³, 50 ppm
SkinREL (USA) Long-term value: 24 mg/m³, 5 ppm
SkinTLV (USA) Long-term value: 97 mg/m³, 20 ppm
BEI**123-42-2 4-hydroxy-4-methylpentan-2-one**PEL (USA) Long-term value: 240 mg/m³, 50 ppmREL (USA) Long-term value: 240 mg/m³, 50 ppmTLV (USA) Long-term value: 238 mg/m³, 50 ppm**107-98-2 1-methoxy-2-propanol**REL (USA) Short-term value: 540 mg/m³, 150 ppm
Long-term value: 360 mg/m³, 100 ppmTLV (USA) Short-term value: 369 mg/m³, 100 ppm
Long-term value: 184 mg/m³, 50 ppm**71-23-8 1-propanol**PEL (USA) Long-term value: 500 mg/m³, 200 ppmREL (USA) Short-term value: 625 mg/m³, 250 ppm
Long-term value: 500 mg/m³, 200 ppm
SkinTLV (USA) Long-term value: 246 mg/m³, 100 ppm**1330-20-7 Xylene**OEL (Japan) Long-term value: 217 mg/m³, 50 ppmPEL (USA) Long-term value: 435 mg/m³, 100 ppmREL (USA) Short-term value: 655 mg/m³, 150 ppm
Long-term value: 435 mg/m³, 100 ppmTLV (USA) Short-term value: 651 mg/m³, 150 ppm
Long-term value: 434 mg/m³, 100 ppm
BEI

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· **Ingredients with biological limit values:**

108-10-1 Methyl isobutyl ketone

OEL-B (Japan) 1,7 mg/l

試 料: 尿

試料採取時期: 作業終了時

物 質: Methylisobutylketone

BEI (USA)

1 mg/L

Medium: urine

Time: end of shift

Parameter: MIBK

111-76-2 2-butoxyethanol

OEL-B (Japan) 200 mg/g Cr

試 料: 尿

試料採取時期: 作業終了時

物 質: Butoxyacetic acid

BEI (USA)

200 mg/g creatinine

Medium: urine

Time: end of shift

Parameter: Butoxyacetic acid with hydrolysis

1330-20-7 Xylene

OEL-B (Japan) 800 mg/l

試 料: 尿

試料採取時期: 週末の作業終了時

物 質: total (o-, m-, p-)methylhippuric acid

BEI (USA)

1,5 g/g creatinine

Medium: urine

Time: end of shift

Parameter: Methylhippuric acids

· **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.

· **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.

· **Protection of hands:** Protective gloves

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing

9 Physical and chemical properties

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

· **General Information**

· **Appearance**

Form: Liquid

Colour: Black

· **Odour:** Characteristic

· **pH-value:** No further information available.

· **Change in condition**

Melting point/Melting range: No further information available.

Boiling point/Boiling range: 117 °C (MIBK)

· **Flash point:** -8 °C (TCC)

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· Ignition temperature:	225 °C
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Lower explosive limit:	1,4 Vol % (MIBK)
· Upper explosive limit:	7,5 Vol % (MIBK)
· Vapour pressure:	No further information available.
· Density:	No further information available.
· Solubility in / Miscibility with water:	No further information available.
· Partition coefficient (n-octanol/water):	No further information available.
· Other information:	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use.
- **Conditions to avoid:** Keep away from heat, sparks, flame, high temperature.
- **Incompatible materials:** Oxidizing agents
- **Hazardous decomposition products:**
As for decomposition products, particulate matters and extremely toxic/ corrosive fumes may be generated (HF, carbonyl fluoride, monomer, perfluoroisobutylene).
Decomposition products differ depending on the temperature and conditions.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**

108-10-1 Methyl isobutyl ketone

Oral LD50 2080 mg/kg (Rat)

Dermal LD50 16000 mg/kg (rab)

Inhalative LC50/4 h 8,3-16,6 ppm (Rat)

- **Primary irritant effect**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:** Sensitization possible through skin contact.

- **Other information (about experimental toxicology):** No further information available.

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

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

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

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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

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behaviour in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** No further relevant information available.
- **vPvB:** No further relevant information available.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Disposal must be made according to official regulations.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number:**

· **ADR, IMDG, IATA** UN1263

· **UN proper shipping name:**

· **ADR:** 1263 PAINT

· **IMDG, IATA** PAINT

· **Transport hazard class(es):**

· **ADR, IMDG, IATA**



· **Class:** 3 Flammable liquids.

· **Label:** 3

· **Packing group:**

· **ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user:** Warning: Flammable liquids.

· **Danger code (Kemler):** 33

· **EMS Number:** F-E,S-E

· **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.

· **ADR**

· **Limited quantities (LQ):** 5L

· **Transport category:** 2

· **Tunnel restriction code:** D/E

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- UN "Model Regulation": UN1263, PAINT, 3, II

15 Regulatory information

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:

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 Organization

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

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent