

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

- **Product identifier**
- **Trade name:** POLYFLON PTFE TC-7105GN
- **Article number:** 7105GN
- **Relevant identified uses of the substance or mixture and uses advised against:**  
No further relevant information available.
- **Application of the substance / the mixture:** Coating compound/ Surface coating/ paint
- **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/>
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+81-6-6349-7521, +1-256-306-5000, +86-512-5-232-0949, +82-2-568-1722, +49-211-179 225-0

### 2 Hazard identification

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



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



Repr. 1B H360D May damage the unborn child.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **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.

Contains Binder. May produce an allergic reaction.

### 3 Composition/information on ingredients

- **Composition**

9002-84-0 Polytetrafluoroethylene

<5%

Binder

5-15%

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Cobalt Green substance with a Community workplace exposure limit	<5%
872-50-4 N-methyl-2-pyrrolidone T Repr. Cat. 2 R61; Xi R36/37/38 Repr. 1B, H360D; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	45-55%
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	15-25%
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	1-10%
Others	5-15%

· **SVHC:**

- 872-50-4 N-methyl-2-pyrrolidone
- **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; 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:** No further relevant information available.
- **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  
Dry sand  
Alcohol resistant foam
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:**  
During heating or in case of fire poisonous gases may be produced.  
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.

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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.
- **Further information about storage conditions:**
  - 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.

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**Trade name: POLYFLON PTFE TC-7105GN**· **Control parameters**· **Ingredients with limit values that require monitoring at the workplace:****872-50-4 N-methyl-2-pyrrolidone**OEL (Japan) Long-term value: 4 mg/m<sup>3</sup>, 1 ppm

WEEL (USA) Long-term value: 10 ppm

Skin

**108-10-1 Methyl isobutyl ketone**OEL (Japan) Long-term value: 200 mg/m<sup>3</sup>, 50 ppmPEL (USA) Long-term value: 410 mg/m<sup>3</sup>, 100 ppmREL (USA) Short-term value: 300 mg/m<sup>3</sup>, 75 ppmLong-term value: 205 mg/m<sup>3</sup>, 50 ppmTLV (USA) Short-term value: 307 mg/m<sup>3</sup>, 75 ppmLong-term value: 82 mg/m<sup>3</sup>, 20 ppm

BEI

**1330-20-7 Xylene**OEL (Japan) Long-term value: 217 mg/m<sup>3</sup>, 50 ppmPEL (USA) Long-term value: 435 mg/m<sup>3</sup>, 100 ppmREL (USA) Short-term value: 655 mg/m<sup>3</sup>, 150 ppmLong-term value: 435 mg/m<sup>3</sup>, 100 ppmTLV (USA) Short-term value: 651 mg/m<sup>3</sup>, 150 ppmLong-term value: 434 mg/m<sup>3</sup>, 100 ppm

BEI

**Cobalt Green**OEL (Japan) Long-term value: 0,05 mg/m<sup>3</sup>  
as CoPEL (USA) Long-term value: 0,1\* mg/m<sup>3</sup>  
as Co; \*for metal dust and fumeREL (USA) Long-term value: 0,05 mg/m<sup>3</sup>  
as Co; metal dust & fumeTLV (USA) Long-term value: 0,02 mg/m<sup>3</sup>  
as Co, BEI· **Ingredients with biological limit values:****872-50-4 N-methyl-2-pyrrolidone**

BEI (USA) 100 mg/L

Medium: urine

Time: end of shift

Parameter: 5-Hydroxy-N-methyl-2-pyrrolidone

**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

**1330-20-7 Xylene**

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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: Green
- **Odour:** Characteristic
- **pH-value:** No further information available.
- **Change in condition**
  - Melting point/Melting range: No further information available.
  - Boiling point/Boiling range: No further information available.
- **Flash point:** 0,8 °C (SCC)
- **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 at 25 °C:** 1 g/cm<sup>3</sup>
- **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

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· **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**

· **LD/LC50 values relevant for classification:**

**872-50-4 N-methyl-2-pyrrolidone**

Oral LD50 3914 mg/kg (Rat)

Dermal LD50 8000 mg/kg (Rabbit)

**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)

**1330-20-7 Xylene**

Oral LD50 4300 mg/kg (Rat)

Dermal LD50 2000 mg/kg (Rabbit)

· **Primary irritant effect**

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

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **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:

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

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

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**

Repr. 1B

### 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.

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

### 15 Regulatory information

- **National regulations**
- **Other regulations, limitations and prohibitive regulations:**
- **Substances of very high concern (SVHC) according to REACH, Article 57:**

872-50-4 N-methyl-2-pyrrolidone

### 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/>

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· **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)*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*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*