

Printing date 22.08.2018

Version number 1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** POLYFLON PTFE TC-7405GN**Article number:** 7405GN**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:

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**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: +1-256-306-5000

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.



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.

**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**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/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-7405GN****SECTION 3: Composition/information on ingredients****Information on ingredients:**

CAS: 9002-84-0	<i>Polytetrafluoroethylene</i>	<5%
	<i>Binder</i>	10-20%
	<i>Xi R36/38; Xi R43; N R51/53</i>	
	<i>Aquatic Chronic 2, H411</i>	
	<i>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</i>	
	<i>Cobalt Green</i>	<5%
CAS: 108-10-1	<i>Methyl isobutyl ketone</i>	35-45%
	<i>Xn R20; Xi R36/37; F R11</i>	
	<i>R66</i>	
	<i>Flam. Liq. 2, H225</i>	
	<i>Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335</i>	
CAS: 25067-11-2	<i>Perfluoro(ethylene-propene) copolymer</i>	5-15%
CAS: 123-42-2	<i>4-Hydroxy-4-methylpentan-2-one</i>	<5%
	<i>Xi R36</i>	
	<i>Flam. Liq. 3, H226</i>	
	<i>Eye Irrit. 2, H319</i>	
CAS: 71-23-8	<i>1-Propanol</i>	<5%
	<i>Xi R41; F R11</i>	
	<i>R67</i>	
	<i>Flam. Liq. 2, H225</i>	
	<i>Eye Dam. 1, H318</i>	
	<i>STOT SE 3, H336</i>	
CAS: 107-98-2	<i>1-Methoxy-2-propanol</i>	<5%
	<i>R10-67</i>	
	<i>Flam. Liq. 3, H226</i>	
	<i>STOT SE 3, H336</i>	
CAS: 64742-94-5	<i>Solvent naphtha (petroleum), heavy arom.</i>	<5%
	<i>Xn R65</i>	
	<i>Asp. Tox. 1, H304</i>	
CAS: 111-76-2	<i>2-Butoxyethanol</i>	<5%
	<i>Xn R20/21/22; Xi R36/38</i>	
	<i>Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319</i>	
CAS: 1330-20-7	<i>Xylene</i>	<5%
	<i>Xn R20/21; Xi R38</i>	
	<i>R10</i>	
	<i>Flam. Liq. 3, H226</i>	
	<i>Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315</i>	
	<i>Others</i>	5-15%

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:** Seek medical treatment.

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**Trade name: POLYFLON PTFE TC-7405GN****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.

**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:**

Water haze

Water spray

Alcohol resistant foam

Fire-extinguishing powder

Dry sand

CO<sub>2</sub>

**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.

Wear fully protective suit.

**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.

There is a danger of explosion. Prepare fire extinguisher in case of emergency.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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**Trade name: POLYFLON PTFE TC-7405GN***See Section 13 for disposal information.***SECTION 7: Handling and storage****7.1 Precautions for safe handling:***Open and handle receptacle with care.**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:***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.**Keep containers 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 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***Additional information about design of technical facilities:* No further data; see item 7.**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 108-10-1 Methyl isobutyl ketone***OEL (Japan) Long-term value: 200 mg/m<sup>3</sup>, 50 ppm**PEL (USA) Long-term value: 410 mg/m<sup>3</sup>, 100 ppm**REL (USA) Short-term value: 300 mg/m<sup>3</sup>, 75 ppm  
Long-term value: 205 mg/m<sup>3</sup>, 50 ppm**TLV (USA) Short-term value: 307 mg/m<sup>3</sup>, 75 ppm  
Long-term value: 82 mg/m<sup>3</sup>, 20 ppm  
BEI***CAS: 111-76-2 2-Butoxyethanol***PEL (USA) Long-term value: 240 mg/m<sup>3</sup>, 50 ppm  
Skin**REL (USA) Long-term value: 24 mg/m<sup>3</sup>, 5 ppm  
Skin**TLV (USA) Long-term value: 97 mg/m<sup>3</sup>, 20 ppm  
BEI***CAS: 123-42-2 4-Hydroxy-4-methylpentan-2-one***PEL (USA) Long-term value: 240 mg/m<sup>3</sup>, 50 ppm**REL (USA) Long-term value: 240 mg/m<sup>3</sup>, 50 ppm**TLV (USA) Long-term value: 238 mg/m<sup>3</sup>, 50 ppm*

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**Trade name: POLYFLON PTFE TC-7405GN****CAS: 107-98-2 1-Methoxy-2-propanol**

REL (USA) Short-term value: 540 mg/m<sup>3</sup>, 150 ppm  
Long-term value: 360 mg/m<sup>3</sup>, 100 ppm

TLV (USA) Short-term value: 369 mg/m<sup>3</sup>, 100 ppm  
Long-term value: 184 mg/m<sup>3</sup>, 50 ppm

**Cobalt Green**

OEL (Japan) Long-term value: 0.05 mg/m<sup>3</sup>  
as Co

PEL (USA) Long-term value: 0.1\* mg/m<sup>3</sup>  
as Co; \*for metal dust and fume

REL (USA) Long-term value: 0.05 mg/m<sup>3</sup>  
as Co; metal dust & fume

TLV (USA) Long-term value: 0.02 mg/m<sup>3</sup>  
as Co, BEI

**CAS: 71-23-8 1-Propanol**

PEL (USA) Long-term value: 500 mg/m<sup>3</sup>, 200 ppm

REL (USA) Short-term value: 625 mg/m<sup>3</sup>, 250 ppm  
Long-term value: 500 mg/m<sup>3</sup>, 200 ppm  
Skin

TLV (USA) Long-term value: 246 mg/m<sup>3</sup>, 100 ppm

**CAS: 1330-20-7 Xylene**

OEL (Japan) Long-term value: 217 mg/m<sup>3</sup>, 50 ppm

PEL (USA) Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

REL (USA) Short-term value: 655 mg/m<sup>3</sup>, 150 ppm  
Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

TLV (USA) Short-term value: 651 mg/m<sup>3</sup>, 150 ppm  
Long-term value: 434 mg/m<sup>3</sup>, 100 ppm  
BEI

**Ingredients with biological limit values:****CAS: 108-10-1 Methyl isobutyl ketone**

BEI (USA) 1 mg/L  
Medium: urine  
Time: end of shift  
Parameter: MIBK

**CAS: 111-76-2 2-Butoxyethanol**

BEI (USA) 200 mg/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: Butoxyacetic acid with hydrolysis

**CAS: 1330-20-7 Xylene**

BEI (USA) 1.5 g/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: Methylhippuric acids

**Additional information:** The lists valid during the making were used as basis.

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**Trade name: POLYFLON PTFE TC-7405GN****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.***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****Material of gloves: Rubber****Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.***Eye protection:****Safety glasses****Body protection: Protective work clothing****SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance****Form:** Liquid**Colour:** Green**Odour:** Characteristic**pH-value:** No further information available.**Melting point/freezing point:** No further information available.**Initial boiling point and boiling range:** No further information available.**Flash point:** -8 °C (TCC)**Flammability (solid, gas):** Not applicable.**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**Explosion limits:****Lower explosive limit:** 1.7 Vol %**Upper explosive limit:** 9.0 Vol %**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.**9.2 Other information:** No further relevant information available.**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.

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**Trade name: POLYFLON PTFE TC-7405GN****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:** Danger of toxic fluorine based pyrolysis products.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful if inhaled.

**LD/LC50 values relevant for classification:****CAS: 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****Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

**CMR effects****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.**Chronic study** No further information available.**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.**Ecotoxicological effects:****Remark:** Harmful to fish**Additional ecological information:****General notes:** Harmful to aquatic organisms**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.**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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**Trade name: POLYFLON PTFE TC-7405GN****SECTION 14: Transport information****14.1 UN-Number:****ADR, IMDG, IATA** UN1263**14.2 UN proper shipping name:****ADR:** 1263 PAINT  
**IMDG, IATA** PAINT**14.3 Transport hazard class(es):****ADR, 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.**Danger code (Kemler):**

33

**EMS Number:**

F-E,S-E

**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.****ADR****Limited quantities (LQ):**

5L

**Transport category:**

2

**Tunnel restriction code:**

D/E

**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****Labelling according to Regulation (EC) No 1272/2008****The product is classified and labelled according to the CLP regulation.****Hazard pictograms**

GHS02 GHS07

**Signal word Danger****Hazard-determining components of labelling:****Methyl isobutyl ketone****Binder****2-Butoxyethanol****Hazard statements****H225 Highly flammable liquid and vapour.****H332 Harmful if inhaled.****H315 Causes skin irritation.****H319 Causes serious eye irritation.****H317 May cause an allergic skin reaction.****H335 May cause respiratory irritation.**

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**Trade name: POLYFLON PTFE TC-7405GN****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/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:** 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

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

Acute Tox. 4: Acute toxicity – Category 4

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.**