

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

**\* SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name: POLYFLON PTFE TC-7808GY****Synonyms: Fluororesin Coatings ( Tough Coat ) TC-7808GY****Article number: TC7808GY\_DFS****1.2 Relevant identified uses of the substance or mixture and uses advised against: Coating compound.****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 FLUORO COATINGS (SHANGHAI) CO., LTD.****No. 388, Chunguang Road, Xinzhuang Industry Zone, Shanghai, 201108, China.****Phone: +86-21-54421840****Fax: +86-21-54425050****1.4 Emergency telephone number:****+86-21-34151689****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****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.****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 [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.**

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

**Additional information:**

Restricted to professional users.

**\* SECTION 3: Composition/information on ingredients****Information on ingredients:**

CAS: 9002-84-0	Polytetrafluoroethylene	1 – 10%
	Binder	1 – 10%
CAS: 13463-67-7	Titanium dioxide	< 5%
CAS: 872-50-4	N-Methyl-2-pyrrolidone	40 – 50%
	Repr. 1B, H360D Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
CAS: 108-10-1	Methyl isobutyl ketone	10 – 20%
	Flam. Liq. 2, H225 Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	
CAS: 108-88-3	Toluene	1 – 10%
	Flam. Liq. 2, H225 Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	
CAS: 78-93-3	Butanone	1 – 10%
	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	
	Others	< 10%

**SVHC:**

CAS: 872-50-4 N-Methyl-2-pyrrolidone

**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.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

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:** 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:**

Foam

Fire-extinguishing powder

CO<sub>2</sub>

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

**Trade name: POLYFLON PTFE TC-7808GY**

**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:** 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:**

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:**

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.

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.

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

**\* SECTION 8: Exposure controls/personal protection**

*Additional information about design of technical facilities: No further data; see item 7.*

**8.1 Control parameters** *No further information available.*

**Ingredients with limit values that require monitoring at the workplace:**

**CAS: 872-50-4 N-Methyl-2-pyrrolidone**

IOELV (EU) Short-term value: 80 mg/m<sup>3</sup>, 20 ppm

Long-term value: 40 mg/m<sup>3</sup>, 10 ppm

Skin

**CAS: 108-10-1 Methyl isobutyl ketone**

IOELV (EU) Short-term value: 208 mg/m<sup>3</sup>, 50 ppm

Long-term value: 83 mg/m<sup>3</sup>, 20 ppm

**CAS: 78-93-3 Butanone**

IOELV (EU) Short-term value: 900 mg/m<sup>3</sup>, 300 ppm

Long-term value: 600 mg/m<sup>3</sup>, 200 ppm

**CAS: 108-88-3 Toluene**

IOELV (EU) Short-term value: 384 mg/m<sup>3</sup>, 100 ppm

Long-term value: 192 mg/m<sup>3</sup>, 50 ppm

Skin

**DNELs:**

**CAS: 872-50-4 N-Methyl-2-pyrrolidone**

Oral DNEL - consumer 0.85 mg/kg bw/d (long-term exposure) (systemic effects)

Dermal DNEL - worker 4.8 mg/kg bw/d (long-term exposure) (systemic effects)

DNEL - consumer 2.4 mg/kg bw/d (long-term exposure) (systemic effects)

Inhalative DNEL - worker 40 mg/m<sup>3</sup> (long-term exposure) (local effects)

14.4 mg/m<sup>3</sup> (long-term exposure) (systemic effects)

DNEL - consumer 3.6 mg/m<sup>3</sup> (long-term exposure) (systemic effects)

4.5 mg/m<sup>3</sup> (long-term exposure) (local effects)

**PNECs:**

**CAS: 872-50-4 N-Methyl-2-pyrrolidone**

PNEC 0.25 mg/l (fresh water)

0.025 mg/l (marine water)

10 mg/l (sewage treatment plant)

PNEC 1.09 mg/kg dw (fresh water sediment)

0.109 mg/kg dw (marine water sediment)

0.07 mg/kg dw (soil)

**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.*

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

**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**

<b>Form:</b>	Liquid
<b>Colour:</b>	Grey
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	No further information available.
<b>Melting point/freezing point:</b>	No further information available.
<b>Initial boiling point and boiling range:</b>	No further information available.
<b>Flash point:</b>	17 °C
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Decomposition temperature:</b>	No further information available.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
<b>Explosion limits:</b>	
<b>Lower explosive limit:</b>	1.3 Vol %
<b>Upper explosive limit:</b>	9.5 Vol %
<b>Vapour pressure:</b>	No further information available.
<b>Density:</b>	No further information available.
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
<b>Partition coefficient: n-octanol/water:</b>	No further information available.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>9.2 Other information:</b>	No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

**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.

**\* SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****CAS: 872-50-4 N-Methyl-2-pyrrolidone**

Oral LD50 4150 mg/kg (Rat) (OECD 401)

Data from CSR.

3914 mg/kg (Rat)

Dermal LD50 &gt; 5000 mg/kg (Rat) (OECD 402)

Data from CSR.

8000 mg/kg (Rabbit)

Inhalative LC50 > 5100 mg/m<sup>3</sup> (Rat) (OECD 403)

Data from CSR.

**CAS: 108-10-1 Methyl isobutyl ketone**

Oral LD50 2080 mg/kg (Rat)

Dermal LD50 16000 mg/kg (rab)

Inhalative LC50/4h 8.2 – 16.4 mg/l (Rat)

**CAS: 108-88-3 Toluene**

Oral LD50 5000 mg/kg (Rat)

Dermal LD50 12124 mg/kg (Rabbit)

Inhalative LC50/4h 5320 ppm (Mouse)

**Primary irritant effect****Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory or skin sensitisation** 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

Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

*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****Germ cell mutagenicity***Not applicable***Carcinogenicity** *Based on available data, the classification criteria are not met.***Reproductive toxicity***May damage the unborn child.***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.***\* 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: no data***12.5 Results of PBT and vPvB assessment****PBT:***No further relevant information available.**Not applicable.***vPvB:***No further relevant information available.**Not applicable.***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.***\* SECTION 14: Transport information****14.1 UN-Number:****ADR, IMDG, IATA**

UN1263

**14.2 UN proper shipping name:****ADR, IMDG, IATA**

PAINT

**14.3 Transport hazard class(es):****ADR****Class:**

3 (F1) Flammable liquids.

**Label:**

3

**IMDG, IATA****Class:**

3 Flammable liquids.



Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

Trade name: POLYFLON PTFE TC-7808GY

<b>Label:</b>	3
<b>14.4 Packing group:</b>	
<b>ADR, IMDG, IATA</b>	II
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user:</b>	Warning: Flammable liquids.
<b>Hazard identification number (Kemler code):</b>	33
<b>EMS Number:</b>	F-E, <u>S-E</u>
<b>Stowage Category</b>	B
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
<b>Transport/Additional information:</b>	Avoid direct sunlight. Make sure of no damage, corrosion, leaks on the receptacles. Take necessary measures for preventing cargo shift.
<b>ADR</b>	
<b>Limited quantities (LQ):</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>Transport category:</b>	2
<b>Tunnel restriction code:</b>	D/E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN 1263 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.

**Hazard pictograms**



GHS02 GHS07 GHS08

**Signal word** Danger

**Hazard-determining components of labelling:**

N-Methyl-2-pyrrolidone

Toluene

**Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

H335 May cause respiratory irritation.

**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.



Printing date 05.11.2020

Version number 1

Revision: 05.11.2020

**Trade name: POLYFLON PTFE TC-7808GY**

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Seveso category P5c FLAMMABLE LIQUIDS****National regulations** No further information available.**Other regulations, limitations and prohibitive regulations: 1****Substances of very high concern (SVHC) according to REACH, Article 57:**

CAS: 872-50-4 N-Methyl-2-pyrrolidone

**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: SAFETY&ENVIRONMENT DEPT.****Contact:** <http://www.daikin.com/>**Abbreviations and acronyms:**

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

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity - inhalation – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

**\* Data compared to the previous version altered.**