



Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 13.02.2023

Version number 9 (replaces version 8)

Revision: 13.02.2023

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

· **1.1 Product identifier**

· **Trade name:** TRW Break Cleaner Spray

· **Article number:** PFC105, PFC105CE, PFC105E, PFC105SE, PFC105RE

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

No further relevant information available.

· **Application of the substance / the mixture**

Cleaner solvent

Detergent spray

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

ZF Aftermarket UK Ltd.

Abbeyfield Road

Lenton

Nottingham, NG7 2SX

Tel +44 333 240 1123

Fax +44 115 986 92 61

<https://www.zf.com>

· **Informing department:**

Phone: +49 (0) 7541 77 0

E-Mail adress of the competent person for the safety data sheet:

reach@dekra.com

· **1.4 Emergency telephone number:**

Poison Information Center Munich

Phone: +49 (0) 89 - 19 240

Information in German and English

Vergiftungsinformationszentrale (VIZ)

(+43) 1 406 43 43

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

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



flame

Aerosol 1

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



environment

Aquatic Chronic 2 H411

Toxic to aquatic life with long lasting effects.



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Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS02 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic 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.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.


vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of the substances listed below including additives not requiring identification.

Dangerous components:

EC number: 921-024-6 Reg.nr.: 01-2119475514-35-X	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane 	50 - 100%
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CAS: 124-38-9	carbon dioxide	2.5 - 10%
EINECS: 204-696-9	substance with a Community workplace exposure limit	

- **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** Remove contaminated clothing immediately.
- **After inhalation**
Provide fresh air. Keep victims quiet and warm.
In case of unconsciousness bring patient into stable side position for transport.
In case of persistent symptoms consult doctor.
- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
In case of permanent aches and pains please go and see the doctor.
- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing** Swallowing is not considered to be a possible way of exposure.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
If swallowed or in case of vomiting, danger of entering the lungs

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Do not inhale smoke and combustion products.
Vapours are heavier than air and may travel long distances along ground, ignite and flash back to source.
Formation of flammable mixtures of vapours with air possible.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus.
- **Additional information**
Remove goods in stock from incendiary zone, if possible.
Cool endangered containers with water spray.
Vapours may form an explosive atmosphere with air.
Collect contaminated fire fighting water separately. It must not enter drains. Provide sufficient fire fighting water retention.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from sources of ignition - No smoking.

- **6.2 Environmental precautions:**

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

- **6.4 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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Keep away from heat and direct sunlight.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and containers:**

No smoking!

Store in cool location.

Ensure sufficient ventilation.

- **Information about storage in one common storage facility:** Store away from foodstuffs.

- **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

- **7.3 Specific end use(s)** No further relevant information available.

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

- **8.1 Control parameters**

- **Components with limit values that require monitoring at the workplace:**

WEL: workplace exposure limit

OEL: Occupational Exposure Limit

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124-38-9 carbon dioxide		
WEL (Great Britain)		Short-term value: 27400 mg/m³, 15000 ppm Long-term value: 9150 mg/m³, 5000 ppm
IOELV (European Union)		Long-term value: 9000 mg/m³, 5000 ppm
OEL (Ireland)		Long-term value: 9000 mg/m³, 5000 ppm IOELV
· DNELs		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
Oral	DNEL (consumer, long-term, systemic)	699 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	773 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	699 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	2,035 mg/m³ (human)
	DNEL (consumer, long-term, systemic)	608 mg/m³ (human)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures

Keep away from foodstuffs, beverages and food.
Take off all contaminated clothing immediately.
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

· Breathing equipment:

Not necessary if room is well-ventilated.
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
Filter AX.

· Hand protection



Protective gloves.

To avoid skin problems reduce the wearing of gloves to the required minimum.

· Material of gloves Nitrile rubber, NBR

· Penetration time of glove material

In case of a layer thickness of 0.4 mm the penetration time is longer than 480 minutes.

· Eye/face protection



Tightly sealed safety glasses.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Colour:	Colourless
· Odour:	Solvent-like
· Odour threshold:	Not determined.
· Melting point/freezing point:	Not determined
· Boiling point or initial boiling point and boiling range	Not applicable, as aerosol
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	0.6 Vol %
· Upper:	7 Vol %
· Flash point:	-12 °C
· Ignition temperature:	> 200 °C
· Decomposition temperature:	Not determined.
· SADT	
· pH	Not determined.
· Viscosity:	
· dynamic:	Not applicable.
· Solubility	
· Water:	Not miscible or difficult to mix
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	8300 hPa
· Density and/or relative density	
· Density	Not determined

· 9.2 Other information

· Appearance:	
· Form:	Aerosol
· Important information on protection of health and environment, and on safety.	
· Self-inflammability:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Extremely flammable aerosol. Pressurised container: May burst if heated.
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void

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· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Forms explosive gas mixture with air
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.

* 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 that are relevant for classification:**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Dermal LD50 > 2,800 mg/kg (rat)

- **Skin corrosion/irritation** Long-term skin contact may cause skin irritation and/or dermatitis.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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 drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.
- **Additional toxicological information:**
When inhaling high concentrations narcotic symptoms are possible.

· **Repeated dose toxicity**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexaneInhalative NOAEC (90d) 24,300 mg/m³ (rat) (OECD 413)
Vapour

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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** biodegradable**Other information:** There are no data available about the preparation.**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:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects**Remark:** Toxic for fish**Additional ecological information:****General notes:**

Toxic for aquatic organisms

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods**Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

The waste code numbers mentioned are recommendations based on the probable use of the product.

European waste catalogue

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing hazardous substances
14 00 00	WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08)
14 06 00	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 03*	other solvents and solvent mixtures
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
HP3	Flammable

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HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP14	Ecotoxic

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

* **SECTION 14: Transport information**

· 14.1 UN number or ID number · ADR/RID, IMDG, IATA	UN1950
· 14.2 UN proper shipping name · ADR/RID · IMDG · IATA	1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS, MARINE POLLUTANT AEROSOLS, flammable
· 14.3 Transport hazard class(es) · ADR/RID  	
· Class · Label	2 5F Gases. 2.1
· IMDG  	
· Class · Label	2.1 Gases. 2.1
· IATA 	
· Class · Label	2.1 Gases. 2.1
· 14.4 Packing group · ADR/RID, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	Yes Symbol (fish and tree)

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· Special marking (ADR/RID):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Gases.
· Kemler Number:	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR/RID	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Chemical safety assessment**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category**
E2 Hazardous to the Aquatic Environment
P3b FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

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· REGULATION (EU) 2019/1148**· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· National regulations

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

· Department issuing data specification sheet:

► **DEKRA** This Safety Data Sheet has been drawn up in cooperation with:
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
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· Abbreviations and acronyms:

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
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Aerosol 1: Aerosols – Category 1
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· * Data compared to the previous version altered.

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