



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

Printing date 06.08.2018

Version number 6

Revision: 11.07.2018

* **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, PFC105E

· **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:**

TRW Automotive Aftermarket

Stratford Road

Shirley

West Midlands

B90 4AX

United Kingdom

Tel. +44.121.506.5000

Fax +44.121.506.5001

www.trwaftermarket.com

cst.uk@trw.com

· **Informing department:** Phone: +49 (0) 2631 / 912 - 0

· **1.4 Emergency telephone number:**

Poison Information Center Munich

Phone: +49 (0) 89 - 19 240

Information in German and English

* **SECTION 2: Hazards identification**

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

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



GHS02 flame

Aerosol 1

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



GHS09 environment

Aquatic Chronic 2 H411

Toxic to aquatic life with long lasting effects.

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GHS07

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 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
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 statementsP210 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.

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* SECTION 3: Composition/information on ingredients

• 3.2 Chemical characterisation: 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 ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	50 - 100%
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide ⚠ Press. Gas (Liq.), H280	2.5 - 10%
CAS: 110-54-3 EINECS: 203-777-6 Reg.nr.: 01-2119480412-44-X	n-hexane ⚠ Flam. Liq. 2, H225; ⚠ Repr. 2, H361f; STOT RE 2, H373; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	≥ 2.5 - < 3%

• **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.

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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.

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:

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

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

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.

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- **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
 - IOELV: Indicative Occupational Exposure Limit Values, workplace threshold value of the European Union

124-38-9 carbon dioxide	
WEL (Great Britain)	Short-term value: 27400 mg/m ³ , 15000 ppm Long-term value: 9150 mg/m ³ , 5000 ppm
IOELV (European Union)	Long-term value: 9000 mg/m ³ , 5000 ppm
110-54-3 n-hexane	
WEL (Great Britain)	Long-term value: 72 mg/m ³ , 20 ppm
IOELV (European Union)	Long-term value: 72 mg/m ³ , 20 ppm

- **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/m ³ (human)
	DNEL (consumer, long-term, systemic)	608 mg/m ³ (human)

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

- **8.2 Exposure controls**
- **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.

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- **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.

- **Protection of hands:**



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 protection:**



Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· Form:	Aerosol
· Colour:	Colourless
· Odour:	Solvent-like
· Odour threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

· Melting point/freezing point:	Not determined
· Initial boiling point and boiling range:	Not applicable, as aerosol

- **Flash point:** < 0 °C

- **Inflammability (solid, gaseous)** Not applicable.

- **Ignition temperature:** 328 °C

- **Decomposition temperature:** Not determined.

- **Self-inflammability:** Product is not selfigniting.

- **Explosive properties:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

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· Critical values for explosion:	
Lower:	1.1 Vol %
Upper:	12.0 Vol %
· Vapour pressure at 20 °C: 8300 hPa	
· Density Not determined	
· Evaporation rate Not determined.	
· Solubility in / Miscibility with Water: Not miscible or difficult to mix	
· Partition coefficient: n-octanol/water: Not determined.	
· Viscosity:	
dynamic:	Not applicable.
· 9.2 Other information No further relevant information available.	

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 toxicological effects**
- **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		
Oral	LD50	> 5,840 mg/kg (rat)
Dermal	LD50	> 2,800 mg/kg (rat)
Inhalative	LC50	> 25.2 mg/l/4h (rat)
110-54-3 n-hexane		
Oral	LD50	> 16,000 mg/kg (rat) (OECD 401)
Dermal	LD50	> 2,000 mg/kg (rabbit)
Inhalative	LC50	> 17,600 mg/l/24h (rat) (OECD 403)

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- **Primary irritant effect:**
- **Skin corrosion/irritation**
Long-term skin contact may cause skin irritation and/or dermatitis.
Causes skin irritation.
- **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.
- **Additional toxicological information:**
When inhaling high concentrations narcotic symptoms are possible.

· Repeated dose toxicity		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
Inhalative	NOAEC (90d)	24,300 mg/m ³ (rat) (OECD 413)
110-54-3 n-hexane		
Oral	NOAEL (90d)	1,135 mg/kg bw/day (rat)
Inhalative	NOAEC (90d)	1,760 mg/m ³ (mouse) (OECD 413)

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:		
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane		
EC50 (static)	3 mg/l/48h (Daphnia magna) (OECD 202)	
LC50	11.4 mg/l/96h (Oncorhynchus mykiss) (OECD 203)	
EC50 (static)	> 10 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201)	

- **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.
- **Ecotoxicological 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.

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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 dangerous 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 dangerous solid porous matrix (for example asbestos), including empty pressure containers

- **Uncleaned packagings:**

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

SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, IMDG, IATA	UN1950
· 14.2 UN proper shipping name	
· ADR	1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
· IMDG	AEROSOLS (Naphtha (petroleum), hydrotreated light), MARINE POLLUTANT
· IATA	AEROSOLS, flammable

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· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	2 5F Gases.
· Label	2.1
· IMDG	
	
· Class	2.1
· Label	2.1
· IATA	
	
· Class	2.1
· Label	2.1
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	
· 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.

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· 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 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· 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**
- **Directive 2012/18/EU**
- **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
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is contained.

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· 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.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

· Department issuing data specification sheet:

This Material Safety Data Sheet has been drawn up in cooperation with:
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· 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
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 (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
Aerosol 1: Aerosols – Category 1
Press. Gas (Liq.): Gases under pressure – Liquefied gas
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
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
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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