

Printing date 16.01.2015

Version number 3

Revision: 16.01.2015

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

- 1.1 Product identifier
- Trade name: PFC 105
- 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: Tel.: +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

Flam. 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.



GHS07

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

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Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R38: Irritating to skin.

F+; Extremely flammable

R12:

Extremely flammable.

N; Dangerous for the environment R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment. R67: Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment: The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version. Has a narcotising effect.

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

#### 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

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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P210

Pressurized container: Do not pierce or burn, even after use. P251

Do not breathe spray. P260

Do not spray on an open flame or other ignition source. P211 P280 Wear protective gloves / eye protection / face protection.

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

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

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

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#### · Additional information:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking.

### 2.3 Other hazards

- Results of PBT and vPvB assessment
  - · **PBT**: Not applicable.
  - · vPvB: Not applicable.

## 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	50 - 100%
	Xn R65; Xi R38; F R11; N R51/53 R67	
	<ul> <li>Flam. Liq. 2, H225;</li> <li>Asp. Tox. 1, H304;</li> <li>Aquatic Chronic 2, H411;</li> <li>Skin Irrit. 2,</li> <li>H315; STOT SE 3, H336</li> </ul>	
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide ♦ Press. Gas L, H280	3-<10%
CAS: 110-54-3 EINECS: 203-777-6 Reg.nr.: 01-2119480412-44-X	n-hexane  Xn R48/20-62-65; Xi R38; F R11; N R51/53 R67 Repr. Cat. 3  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 risk 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 eve 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.

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• 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 jet.

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.

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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

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			
110-54-3 n-hexane			
WEL (Great Britain) Long-term value: 72 mg/m³, 20 ppm			
IOELV (European Union)	Long-term value: 72 mg/m³, 20 ppm		
· DNELs			
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			
Dermal DNEL (worker, long-term, systemic) 773 mg/kg bw/day (human)			

#### Additional information:

The lists that were valid during the compilation were used as basis.

Inhalative DNEL (worker, long-term, systemic) 2035 mg/m³ (human)

### · 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.

### 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.

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· 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

SECTION 9: Physical and chemical properties			
<ul> <li>9.1 Information on basic physical and General Information</li> <li>Appearance: <ul> <li>Form:</li> <li>Colour:</li> <li>Odour:</li> <li>Odour threshold:</li> </ul> </li> </ul>	Aerosol Colourless Solvent-like Not determined.		
· pH-value:	Not determined.		
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	Not determined 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.		
· Danger of explosion:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.		
Critical values for explosion:     Lower:     Upper:	1.1 Vol % 12.0 Vol %		
→ Vapour pressure at 20 °C:	8300 hPa		
Density Evaporation rate	Not determined Not determined.		
· Solubility in / Miscibility with · Water:	Not miscible or difficult to mix		
· Partition coefficient (n-octanol/wa	ter): Not determined.		

Not applicable.

No further relevant information available.

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· Viscosity: · dynamic:

9.2 Other information

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## SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- 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:

Acute to	Alcity				
· LD/LC50 values that are relevant for classification:					
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane					
Oral	LD50	> 5840 mg/kg (rat)			
Dermal	LD50	> 2800 mg/kg (rat)			
Inhalative	LC50	> 25.2 mg/l/4h (rat)			
110-54-3 n-hexane					
Oral	LD50	> 16000 mg/kg (rat) (OECD 401)			
Oral LD50 > 5840 mg/kg (rat) Dermal LD50 > 2800 mg/kg (rat) Inhalative LC50 > 25.2 mg/l/4h (rat)  110-54-3 n-hexane					

Orai	LDSU	> 10000 mg/kg (lat) (OECD 401)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50	> 17600 mg/l/24h (rat) (OECD 403)

- Primary irritant effect:
  - on the skin:
  - Irritant to skin and mucous membranes.

Long-term skin contact may cause skin irritation and/or dermatitis.

- · on the eye: Irritant effect.
- · Sensitisation: No sensitizing effect known.
- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version: Irritant

When inhaling high concentrations narcotic symptoms are possible.

	· Repeated dose toxicity			
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane				
	Inhalative NOAEC (90d) 24300 mg/m3 (rat) (OECD 413)			
	110-54-3 n-hexane			
		NOAEL (90d) 1135 mg/kg bw/day (rat)		
	Inhalative	NOAEC (90d) 1760 mg/m3 (mouse) (OECD 413)		

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## **SECTION 12: Ecological information**

### · 12.1 Toxicity

### Aquatic toxicity:

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

EC50 (static) > 10 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201)

3 mg/l/48h (Daphnia magna) (OECD 202)

LC50 11.4 mg/l/96h (Oncorhynchus mykiss) (OECD 203)

- · 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.
- · Ecotoxical 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.

- · 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.

	p	
1	• Europea	an 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
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- · 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, ENVIRONI HAZARDOUS	MENTALLY	
· IMDG · IATA	AEROSOLS (Naphtha (petrole hydrotreated light), MARINE F AEROSOLS, flammable		
· 14.3 Transport hazard class(es)	ALIVOSOLO, Hammable		
· ADR			
· Class · Label	2 5F Gases. 2.1		
· IMDG			
SV			
· Class · Label	2.1 2.1		
· Class · Label	2.1 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)		
<ul> <li>14.6 Special precautions for user</li> <li>Kemler Number:</li> <li>EMS Number:</li> </ul>	Warning: Gases. - F-D,S-U		
· 14.7 Transport in bulk according to II of MARPOL73/78 and the IBC Cod			
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(Contd. from page 9) · Transport/Additional information: · ADR · Limited quantities (LQ) Code: E0 Excepted quantities (EQ) Not permitted as Excepted Quantity Transport category 2 · Tunnel restriction code D IMDG Limited quantities (LQ) · Excepted quantities (EQ) Code: E0 Not permitted as Excepted Quantity · UN "Model Regulation": UN1950, AEROSOLS,

**ENVIRONMENTALLY HAZARDOUS, 2.1** 

## 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 CLB regulation.

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

· 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/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P260 Do not breathe spray.

P211 Do not spray on an open flame or other ignition source.
P280 Wear protective gloves / eye protection / face protection.

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

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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

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- · 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.

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.

Highly flammable. R11

R38 Irritating to skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Possible risk of impaired fertility. R62

R65 Harmful: may cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

#### · Department issuing data specification sheet:

This Material Safety Data Sheet has been drawn up in cooperation with: DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany, phone: (+49) 511 42079 - 0, reach@dekra.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

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

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas L: Gases under pressure: Liquefied gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

\* Data compared to the previous version altered.