

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

Printing date 13.06.2012

Version number 1

Revision: 13.06.2012

1 Identification of the substance/mixture and of the company/ undertaking

· **Product identifier**

- **Trade name:** TRW Bremsenreiniger PFC 115 liquid
- **Relevant identified uses of the substance or mixture and uses advised against**
 - **Application of the substance / the preparation** Cleaner solvent

· **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

· **Emergency telephone number:**

Poison Information Center Munich
Phone: +49 (0) 89 - 19 240
Information in German and English

2 Hazards identification

· **Classification of the substance or mixture**

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



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

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



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.



Xi; Irritant

R36/38: Irritating to eyes and skin.



F; Highly flammable

R11: Highly 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 narcotizing 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.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**



Xn Harmful

F Highly flammable

N Dangerous for the environment

· **Hazard-determining components of labelling:**

Naphtha (petroleum), hydrotreated light

· **Risk phrases:**

11 Highly flammable.

36/38 Irritating to eyes and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

2 Keep out of the reach of children.

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe vapour/spray.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

60 This material and its container must be disposed of as hazardous waste.

62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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 · **vPvB:** Not applicable.













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3 Composition/information on ingredients

 · **Chemical characterization: Mixtures**

 · **Description:** Mixture consisting of the following components.

 · **Dangerous components:**

CAS: 64742-49-0 EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light  Xi R65;  Xi R38;  F R11;  N R51/53 R67  Flam. Liq. 2, H225;  Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; STOT SE 3, H336	50-100%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol  Xi R36;  F R11 R67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	10-25%

 · **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

 · **Description of first aid measures**

 · **General information** Remove contaminated clothing.

 · **After inhalation**

Supply fresh air; consult doctor in case of symptoms.

In case of unconsciousness bring patient into stable side position for transport.

 · **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** Do NOT induce vomiting in order to prevent an invasion into the lungs.

 · **Information for doctor**

 · **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

 · **Indication of any immediate medical attention and special treatment needed**

If swallowed or in case of vomiting, danger of entering the lungs

5 Firefighting measures

 · **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.

 · **Special hazards arising from the substance or mixture** No further relevant information available.

 · **Advice for firefighters**

 · **Protective equipment:**

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus.

 · **Additional information**

Remove fill mass from incendiary zone, if possible.

Vapours may form an explosive atmosphere with air.

Collect contaminated fire fighting water separately. It must not enter drains.

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Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **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.
- **Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Inform respective authorities in case product reaches water or sewage system.
- **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 item 13.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling**
 - **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
 - **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage**
 - **Requirements to be met by storerooms and containers:** Store in cool location.
 - **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.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
OEL: occupational exposure limit
WEL: workplace exposure limit

67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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· DNELs

64742-49-0 Naphtha (petroleum), hydrotreated light

Dermal	DNEL (worker, long-term, systemic)	25.9 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	3.25 mg/m ³ (human)

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

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- **Exposure controls**
 - **Personal protective equipment**
 - **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
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.
 - **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.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
 - **General Information**
 - **Appearance:**
 - **Form:** Fluid
 - **Colour:** Colourless
 - **Odour:** Solvent-like
 - **Odour threshold:** Not determined.
 - **pH-value:** Not determined.
 - **Change in condition**
 - **Melting point/Melting range:** Not determined
 - **Boiling point/Boiling range:** 70 °C
 - **Flash point:** 12 °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:** 1.1 Vol %
 - **Upper:** 12.0 Vol %
 - **Vapour pressure at 20 °C:** 44 hPa
 - **Density at 20 °C** 0.71 g/cm³
 - **Relative density** Not determined.
 - **Vapour density** Not determined.
 - **Evaporation rate** Not determined.

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- | | |
|---|--|
| · Solubility in / Miscibility with | |
| · Water: | Not miscible or difficult to mix |
| · Partition coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| · dynamic: | Not determined. |
| · Solvent content: | |
| · Organic solvents: | |
| · VOC EU | 100 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
 - **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
 - **Possibility of hazardous reactions** No dangerous reactions known
 - **Conditions to avoid** No further relevant information available.
 - **Incompatible materials:** No further relevant information available.
 - **Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

64742-49-0 Naphtha (petroleum), hydrotreated light

Oral	LD50	5580 mg/kg (rat) (EU Method B.1)
Dermal	LD50	8260 mg/kg (guinea pig) (21 CFR 191.10)
Inhalative	LC50	43.7 mg/l/4h (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.
- **Sensitization:** 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
Smallest amounts which can get into the lungs by means of swallowing or subsequent vomiting can cause a pulmonary oedema or pneumonia.
When inhaling high concentrations narcotic symptoms are possible.

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12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

64742-49-0 Naphtha (petroleum), hydrotreated light

EC50 (static)	12.4 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201)
	4.7 mg/l/48h (Daphnia magna) (OECD 202)
LC50 (static)	8.41 mg/l/96h (Oncorhynchus mykiss) (OECD 203)

- **Persistence and degradability** biodegradable

- **Other information:** There are no data available about the preparation.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Toxic for fish

- **Additional ecological information:**

- **General notes:**

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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **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**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 07 00	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 04*	other organic solvents, washing liquids and mother liquors
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
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03 00	off-specification batches and unused products
16 03 05*	organic wastes containing dangerous substances

- **Uncleaned packagings:**

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

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA 	UN1993
<ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG · IATA 	1993 FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light, ISOPROPANOL (ISOPROPYL ALCOHOL)), ENVIRONMENTALLY HAZARDOUS, special provision 640D FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light, ISOPROPANOL (ISOPROPYL ALCOHOL)), MARINE POLLUTANT FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light, ISOPROPANOL (ISOPROPYL ALCOHOL))
<ul style="list-style-type: none"> · Transport hazard class(es) · ADR 	
	
<ul style="list-style-type: none"> · Class · Label 	3 (F1) Flammable liquids. 3
<ul style="list-style-type: none"> · IMDG 	
	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. 3
<ul style="list-style-type: none"> · IATA 	
	
<ul style="list-style-type: none"> · Class · Label 	3 Flammable liquids. Not Restricted. 3
<ul style="list-style-type: none"> · Packing group · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): 	Product contains environmentally hazardous substances: Naphtha (petroleum), hydrotreated light Yes Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user · Kemler Number: · EMS Number: 	Warning: Flammable liquids. 33 F-E,S-E
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.

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· Transport/Additional information:
· ADR
· Tunnel restriction code

D/E

· UN "Model Regulation":

UN1993, FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light, ISOPROPANOL (ISOPROPYL ALCOHOL)), special provision 640D, ENVIRONMENTALLY HAZARDOUS, 3, II

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:


Xn Harmful

F Highly flammable

N Dangerous for the environment

· Hazard-determining components of labelling:

Naphtha (petroleum), hydrotreated light

· Risk phrases:

11 Highly flammable.

36/38 Irritating to eyes and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

· Safety phrases:

2 Keep out of the reach of children.

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe vapour/spray.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

60 This material and its container must be disposed of as hazardous waste.

62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

· National regulations
· Technical instructions (air):

Class	Share in %
III	50-100
NK	10-25

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

- R11 Highly flammable.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R67 Vapours may cause drowsiness and dizziness.

· **Department issuing data specification sheet:**

This Material Safety Data Sheet has been drawn up in cooperation with:
DEKRA Consulting GmbH, Hanomagstr. 12, D-30449 Hannover, Germany
Tel.: +49.511.42079-311, reach@dekra.com.

· **Contact:** sdfsdfsdf

· **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 Harmonized System of Classification and Labelling of Chemicals
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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