

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

Printing date 12.05.2014

Version number 2

Revision: 12.05.2014

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

- **Product identifier**
- **Trade name:** Synthetic Fluid für Lenkungs- und Hydropneumatiksysteme
 - **Article number:** PFS 801, PFS 805
 - **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - **Application of the substance / the mixture** Hydraulic fluid
- **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**



GHS08 health hazard

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



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

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



Xn; Harmful

R20: Harmful by inhalation.

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- **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.
- **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 Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Dec-1-ene, dimers, hydrogenated
Distillates (petroleum), hydrotreated middle
- **Hazard statements**
H332 Harmful if inhaled.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**
P102 Keep out of reach of children.
P260 Do not breathe mist/vapours/spray.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P331 Do NOT induce vomiting.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
Packaging of whatever capacity supplied to the general public shall be fitted with child-resistant fastenings.
Packaging of whatever capacity that is delived to the general public shall be fitted with a tactile warning of danger according to EN ISO 11683.
- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:**

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

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· Dangerous components:

CAS: 68649-11-6 NLP: 500-228-5 Reg.nr.: 01-2119493069-28-X	Dec-1-ene, dimers, hydrogenated ☒ Xn R20-65 ☠ Asp. Tox. 1, H304; ☠ Acute Tox. 4, H332	25-50%
CAS: 64742-46-7 EINECS: 265-148-2 Reg.nr.: 01-2119489867-12-X	Distillates (petroleum), hydrotreated middle ☒ Xn R65 R66-67 ☠ Asp. Tox. 1, H304; ☠ STOT SE 3, H336	15-<25%
CAS: 125643-61-0 ELINCS: 406-040-9 Reg.nr.: 01-2119878226-29-X	A mixture of isomers of: C7-9-alkyl-3-(3,5-di-trans-butyl-4-hydroxyphenyl) propionate R53 Aquatic Chronic 4, H413	< 2.5%

· 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** Instantly remove any clothing soiled by the product.
- **After inhalation**
Supply fresh air.
In case of persistent symptoms consult doctor.
- **After skin contact**
Wash intensively with water and soap. Use protective skin ointment.
If skin irritation continues, consult a doctor.
- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing**
Do not induce vomiting.
Rinse out mouth.
Instantly call for doctor.
- **Information for doctor**
 - **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
 - **Danger**
In case of ingestion or vomiting product may enter the lung.
Aspiration may cause pulmonary oedema and pneumonitis.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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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**
Inhalation of combustion gases may cause serious health hazards.
During incomplete combustion carbon monoxide can be formed.
- **Advice for firefighters**
 - **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
Remove fill mass from incendiary zone, if possible.
Use water to keep fire exposed containers cool.
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**
Do not inhale vapours.
Ensure adequate ventilation
Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:**
Prevent from spreading (e.g. by damming-in or oil barriers).
Do not allow to enter drainage system, surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose of the material collected according to regulations.
- **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**
Prevent formation of aerosols.
Use only in well ventilated areas.
Do not inhale gases/vapours/aerosols.
 - **Information about protection against explosions and fires:**
Do not heat close to flash point.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
 - **Requirements to be met by storerooms and containers:**
Store only in the original container.
Prevent any penetration into the ground.
 - **Information about storage in one common storage facility:**
Store away from oxidizing agents.
 - **Further information about storage conditions:**
Keep container tightly sealed.
Store container in a well ventilated position.
Store under dry conditions.
- **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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **DNELs**

68649-11-6 Dec-1-ene, dimers, hydrogenated

Inhalative	DNEL (consumer, short-term, systemic)	50 mg/m ³ (human)
	DNEL (worker, short-term, systemic)	60 mg/m ³ (human)

- **PNECs**

64742-46-7 Distillates (petroleum), hydrotreated middle

PNEC oral	17000 mg/kg food (.)
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- **Additional information:**
The lists that were valid during the compilation were used as basis.
- **Exposure controls**
 - **Personal protective equipment**
 - **General protective and hygienic measures**
Avoid close or long term contact with the skin.
Do not carry cleaning cloths impregnated with the product in trouser pockets.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
 - **Breathing equipment:**
Not necessary if room is well-ventilated.
Use a breathing protection if high concentrations are present.
Filter A/P2.
 - **Protection of hands:** Use gloves of stable material (i.e. nitril rubber).
 - **Material of gloves**
Chloroprene rubber, CR
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.2 mm
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the

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resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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 recommended during refilling.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

Fluid

· **Colour:**

Not determined.

· **Odour:**

Mineral-oil-like

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

· **Melting point/Melting range:**

- 55 °C

· **Boiling point/Boiling range:**

250 - 380 °C

· **Flash point:**

> 150 °C

· **Inflammability (solid, gaseous)**

Not applicable.

· **Ignition temperature:**

> 350 °C

· **Decomposition temperature:**

Thermally in general stable.

· **Self-inflammability:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive.

· **Critical values for explosion:**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Vapour pressure:**

Not determined.

· **Density at 20 °C**

0.84 - 0.89 g/cm³

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with**

· **Water:**

Insoluble

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **dynamic:**

Not determined.

· **kinematic at 40 °C:**

16 - 20 mm²/s

· **Other information**

No further relevant information available.

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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:**
Avoid contact with strong oxidizing agents.
Acid
- **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:**

68649-11-6 Dec-1-ene, dimers, hydrogenated

Oral	LD50	> 5000 mg/kg (rat) (16 CFR 1500)
Dermal	LD50	> 3000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50	> 1.81 mg/l/4h (rat) (OECD 403)

64742-46-7 Distillates (petroleum), hydrotreated middle

Oral	LD50	> 5000 mg/kg (rat) (OECD 401)
Dermal	LD50	> 2000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50	4.6 mg/l/4h (rat) (OECD 403)

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No 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:
Harmful
Smallest amounts which can get into the lungs by means of swallowing or subsequent vomiting can cause a pulmonary oedema or pneumonia.

- **Repeated dose toxicity**

68649-11-6 Dec-1-ene, dimers, hydrogenated

Oral	NOAEL (90d)	4159 mg/kg bw/day (rat) (OECD 408)
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12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

68649-11-6 Dec-1-ene, dimers, hydrogenated

EC50 (static)	> 1000 mg/l/72h (Selenastrum capricornutum)
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	> 1000 mg/l/48h (Daphnia magna) (OECD 202)
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LC50	> 1000 mg/l/96h (Oncorhynchus mykiss) (OECD 203)
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64742-46-7 Distillates (petroleum), hydrotreated middle

EC50	7.38 mg/l/48h (Daphnia magna) (QSAR)
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LC50	65 mg/l/96h (Oncorhynchus mykiss) (OECD 203)
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- **Persistence and degradability** Heavily biodegradable

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

- **Behaviour in environmental systems:**

- **Components:**

- A product that has flown out can lead to the formation of a film on the water surface which reduces the oxygen exchange and results in the organisms dying-off.

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

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

- **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.

- **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 be specially treated under adherence to official regulations.

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

- **European waste catalogue**

13 00 00	OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)
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13 01 00	waste hydraulic oils
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13 01 10*	mineral based non-chlorinated hydraulic oils
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13 00 00	OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)
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H304 May be fatal if swallowed and enters airways.

• **Precautionary statements**

- P102 Keep out of reach of children.
 P260 Do not breathe mist/vapours/spray.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P331 Do NOT induce vomiting.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **National regulations**

• **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.

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**

- H304 May be fatal if swallowed and enters airways.
 H332 Harmful if inhaled.
 H336 May cause drowsiness or dizziness.
 H413 May cause long lasting harmful effects to aquatic life.
 R20 Harmful by inhalation.
 R53 May cause long-term adverse effects in the aquatic environment.
 R65 Harmful: may cause lung damage if swallowed.
 R66 Repeated exposure may cause skin dryness or cracking.
 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 Hanover, Germany,
 tel.: (+49) 511 42079 311, 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 Harmonized 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)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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

Aquatic Chronic 4: Hazardous to the aquatic environment - Chronic Hazard, Category 4

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

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