

GB

Page 1 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 26.09.2018 / 0002  
Replacing version dated / version: 15.05.2017 / 0001  
Valid from: 26.09.2018  
PDF print date: 27.09.2018  
PAG OIL SP-A2  
Art.: 8FX 351 213-141

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**PAG OIL SP-A2**  
**Art.: 8FX 351 213-141**

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

**Relevant identified uses of the substance or mixture:**

Lubricating oil

**Uses advised against:**

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

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Behr Hella Service GmbH, Dr.-Manfred-Behr-Str. 1, 74523 Schwäbisch Hall, Germany  
Phone:+49 (0) 7907 9446 483 31, Fax:+49 (0) 7907 9446 483 73

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

**Emergency information services / official advisory body:**

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**Telephone number of the company in case of emergencies:**

+49 (0) 7907 9446 483 31

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) 1272/2008 (CLP)**

Hazard class	Hazard category	Hazard statement
Skin Sens.	1	H317-May cause an allergic skin reaction.
Aquatic Acute	1	H400-Very toxic to aquatic life.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

**Labeling according to Regulation (EC) 1272/2008 (CLP)**

(GB)

Page 2 of 17

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141



Warning

H317-May cause an allergic skin reaction. H410-Very toxic to aquatic life with long lasting effects.

P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves.  
 P333+P313-If skin irritation or rash occurs: Get medical advice / attention.

EUH205-Contains epoxy constituents. May produce an allergic reaction.

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-.omega.-methoxy-

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

n.a.

### 3.2 Mixture

<b>Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-.omega.-methoxy-</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	---
<b>CAS</b>	24991-61-5
<b>content %</b>	50-<98
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Skin Sens. 1, H317

<b>Decyloxirane</b>	
<b>Registration number (REACH)</b>	01-2119943390-42-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	220-667-3
<b>CAS</b>	2855-19-8
<b>content %</b>	1-<5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)

<b>Tris(methylphenyl) phosphate</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---

GB

Page 3 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

<b>EINECS, ELINCS, NLP</b>	215-548-8
<b>CAS</b>	1330-78-5
<b>content %</b>	0,1-<3
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Aquatic Acute 1, H400 (M=1) Repr. 2, H361 Aquatic Chronic 1, H410 (M=1)

<b>Dodecyloxirane</b>	
<b>Registration number (REACH)</b>	01-2119943387-29-XXXX
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	221-781-6
<b>CAS</b>	3234-28-4
<b>content %</b>	1-<2,5
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)

<b>2,6-di-tert-butyl-p-cresol</b>	
<b>Registration number (REACH)</b>	---
<b>Index</b>	---
<b>EINECS, ELINCS, NLP</b>	204-881-4
<b>CAS</b>	128-37-0
<b>content %</b>	0,1-<1
<b>Classification according to Regulation (EC) 1272/2008 (CLP)</b>	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.  
 The substances named in this section are given with their actual, appropriate classification!  
 For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!  
 Never pour anything into the mouth of an unconscious person!

#### Inhalation

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

The following may occur:

Irritation of the eyes

With long-term contact:

Drying of the skin.

Dermatitis (skin inflammation)

(GB)

Page 4 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 26.09.2018 / 0002  
Replacing version dated / version: 15.05.2017 / 0001  
Valid from: 26.09.2018  
PDF print date: 27.09.2018  
PAG OIL SP-A2  
Art.: 8FX 351 213-141

Allergic reaction  
On vapour formation:  
Irritation of the respiratory tract  
Ingestion:  
Nausea  
diarrhoea  
Vomiting

#### **4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Water jet spray/foam/CO2/dry extinguisher

##### **Unsuitable extinguishing media**

High volume water jet

#### **5.2 Special hazards arising from the substance or mixture**

In case of fire the following can develop:

Oxides of carbon  
Oxides of phosphorus  
Toxic gases

#### **5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.  
Protective respirator with independent air supply.  
According to size of fire  
Full protection, if necessary.  
Cool container at risk with water.  
Dispose of contaminated extinction water according to official regulations.

### **SECTION 6: Accidental release measures**

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

Keep unprotected persons away.  
Ensure sufficient supply of air.  
Avoid contact with eyes or skin.  
If applicable, caution - risk of slipping.

#### **6.2 Environmental precautions**

If leakage occurs, dam up.  
Resolve leaks if this possible without risk.  
Prevent from entering drainage system.  
Prevent surface and ground-water infiltration, as well as ground penetration.  
If accidental entry into drainage system occurs, inform responsible authorities.

#### **6.3 Methods and material for containment and cleaning up**

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.  
Fill the absorbed material into lockable containers.

#### **6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

### **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

#### **7.1 Precautions for safe handling**

GB

Page 5 of 17

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

### 7.1.1 General recommendations

Ensure good ventilation.  
 Avoid contact with eyes.  
 Avoid long lasting or intensive contact with skin.  
 Do not carry cleaning cloths soaked in product in trouser pockets.  
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
 Observe directions on label and instructions for use.  
 Use working methods according to operating instructions.

### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Under all circumstances prevent penetration into the soil.  
 Do not store with oxidizing agents.  
 Protect from direct sunlight and warming.  
 Store in a well-ventilated place.  
 Store cool.

### 7.3 Specific end use(s)

No information available at present.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Chemical Name	2,6-di-tert-butyl-p-cresol		Content %:0,1- <1
WEL-TWA: 10 mg/m3	WEL-STEL: ---	---	
Monitoring procedures:	---		
BMGV: ---	Other information: ---		

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

### 8.2 Exposure controls

Decyloxirane						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,171	µg/l	
	Environment - marine		PNEC	0,017	µg/l	

GB

Page 6 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

	Environment - water, sporadic (intermittent) release		PNEC	1,71	µg/l	
	Environment - sewage treatment plant		PNEC	3,6	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - dermal	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	10,9	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	10,4	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	36,7	mg/m3	

<b>Dodecyloxirane</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,002	µg/l	
	Environment - marine		PNEC	0,0002	µg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,024	µg/l	
	Environment - sewage treatment plant		PNEC	2,61	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - dermal	Long term, systemic effects	DNEL	6,25	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	10,9	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	10,4	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	36,7	mg/m3	

<b>2,6-di-tert-butyl-p-cresol</b>						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - soil		PNEC	1,04	mg/kg wwt	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment		PNEC	1,29	mg/kg wwt	
	Environment - marine		PNEC	0,4	µg/l	
	Environment - periodic release		PNEC	4	µg/l	
	Environment - freshwater		PNEC	4	µg/l	
	Environment - oral (animal feed)		PNEC	16,7	mg/kg	
	Environment - soil		PNEC	1,23	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,74	mg/m3	

GB

Page 7 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

Consumer	Human - dermal	Long term, systemic effects	DNEL	5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5,8	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	8,3	mg/kg bw/day	

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.  
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.  
 These are specified by e.g. BS EN 14042.  
 BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN 374).  
 Recommended  
 Protective nitrile gloves (EN 374)  
 Minimum layer thickness in mm:  
 >= 0,3  
 Permeation time (penetration time) in minutes:  
 >= 240

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.  
 Protective hand cream recommended.

Skin protection - Other:  
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:  
 Normally not necessary.  
 In aerosol misting:  
 Filter A P2 (EN 14387), code colour brown, white  
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
 Not applicable

Additional information on hand protection - No tests have been performed.  
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.  
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.



(GB)

Page 8 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless, Clear
Odour:	Slightly
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	>170 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,9882 g/cm <sup>3</sup> (15°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	42,66 mm <sup>2</sup> /s (40°C)
Viscosity:	9,512 mm <sup>2</sup> /s (100°C)
Explosive properties:	Product is not explosive.
Oxidising properties:	No

### 9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product has not been tested.

### 10.2 Chemical stability

Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

Do not heat to temperatures close to flash point.

### 10.5 Incompatible materials

None known

### 10.6 Hazardous decomposition products

No decomposition when used as directed.



Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

#### PAG OIL SP-A2

Art.: 8FX 351 213-141

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

#### Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-.omega.-methoxy-

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						Sensitising
Aspiration hazard:						No

#### Decyloxirane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)

#### Tris(methylphenyl) phosphate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>3700	mg/kg	Rat		Analogous conclusion

GB

Page 10 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

Acute toxicity, by dermal route:	LD0	10000	mg/kg	Rabbit		Analogous conclusion
Acute toxicity, by inhalation:	LC50	11,1	mg/l/1h			Aerosol
Skin corrosion/irritation:						Slightly irritant
Serious eye damage/irritation:						Slightly irritant
Respiratory or skin sensitisation:				Guinea pig		Negative
Germ cell mutagenicity:					(Ames-Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Positive
Specific target organ toxicity - repeated exposure (STOT-RE):	NOEL	250	mg/kg	Rat		

#### Dodecyloxirane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)

#### 2,6-di-tert-butyl-p-cresol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2930	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:						Slightly irritant
Serious eye damage/irritation:				Rabbit	(Draize-Test)	Slightly irritant
Respiratory or skin sensitisation:				Human being		Not sensitising
Germ cell mutagenicity:					(Ames-Test)	Negative
Germ cell mutagenicity:				Mammalian	in vitro	Negative
Reproductive toxicity:	NOAEL	100	mg/kg	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE):	NOEL	25	mg/kg	Rat		(28 d)
Symptoms:						mucous membrane irritation

### SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

**PAG OIL SP-A2**  
**Art.: 8FX 351 213-141**

(GB)

Page 11 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-methyl-omega.-methoxy-							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Decyloxirane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to daphnia:	EC50	48h	0,171	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,056	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,00416	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

Tris(methylphenyl) phosphate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,6	mg/l			
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,01	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	0,14	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	0,4	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:			80	%			
12.3. Bioaccumulative potential:	BCF		144				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

GB

Page 12 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

Toxicity to bacteria:	EC50		>10000 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

**Dodecyloxirane**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to algae:	EC50	72h	0,00236	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,00165	mg/l	Pseudokirchnerie lla subcapitata	OECD 201 (Alga, Growth Inhibition Test)	

**2,6-di-tert-butyl-p-cresol**

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>0,57	mg/l		QSAR	
12.1. Toxicity to fish:	NOEC/NOEL	42d	0,053	mg/l	Oryzias latipes	OECD 210 (Fish, Early-Life Stage Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	0,61	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,07	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	0,5	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	1	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	4,5	%		OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Not readily biodegradable
12.3. Bioaccumulative potential:	BCF		330- 1800				

GB

Page 13 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

12.3. Bioaccumulative potential:			230-2500		Cyprinus caprio	OECD 305 (Bioconcentration - Flow-Through Fish Test)	56d
12.3. Bioaccumulative potential:	Log Pow		5,1				High
12.5. Results of PBT and vPvB assessment							No PBT substance
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge		
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:			0,00076	g/l			

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.  
 EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.  
 Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

13 02 08 other engine, gear and lubricating oils

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

##### For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

15 01 10 packaging containing residues of or contaminated by hazardous substances

### SECTION 14: Transport information

#### General statements

14.1. UN number: 3082

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DECYLOXIRANE, DODECYLOXIRANE)

14.3. Transport hazard class(es): 9  
 14.4. Packing group: III  
 Classification code: M6  
 LQ: 5 L



(GB)

Page 14 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

14.5. Environmental hazards: environmentally hazardous  
 Tunnel restriction code: -

**Transport by sea (IMDG-code)**

14.2. UN proper shipping name:  
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DECYLOXIRANE,DODECYLOXIRANE )



14.3. Transport hazard class(es): 9  
 14.4. Packing group: III  
 EmS: F-A, S-F  
 Marine Pollutant: Yes  
 14.5. Environmental hazards: environmentally hazardous

**Transport by air (IATA)**

14.2. UN proper shipping name:  
 Environmentally hazardous substance, liquid, n.o.s. (DECYLOXIRANE,DODECYLOXIRANE )



14.3. Transport hazard class(es): 9  
 14.4. Packing group: III  
 14.5. Environmental hazards: environmentally hazardous

**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.  
 All persons involved in transporting must observe safety regulations.  
 Precautions must be taken to prevent damage.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Freighted as packaged goods rather than in bulk, therefore not applicable.  
 Minimum amount regulations have not been taken into account.  
 Danger code and packing code on request.  
 Comply with special provisions.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:  
 Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
E1		100	200
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Observe incident regulations.

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

**SECTION 16: Other information**

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

Revised sections: 3, 8, 9, 11, 15

Employee training in handling dangerous goods is required.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

**Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):**

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Sens. 1, H317	Classification according to calculation procedure.
Aquatic Acute 1, H400	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H361 Suspected of damaging fertility or the unborn child.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

- Skin Sens. — Skin sensitization
- Aquatic Acute — Hazardous to the aquatic environment - acute
- Aquatic Chronic — Hazardous to the aquatic environment - chronic
- Skin Irrit. — Skin irritation
- Repr. — Reproductive toxicity

**Any abbreviations and acronyms used in this document:**

- AC Article Categories
- acc., acc. to according, according to
- ACGIH American Conference of Governmental Industrial Hygienists
- ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
- AOEL Acceptable Operator Exposure Level
- AOX Adsorbable organic halogen compounds
- approx. approximately
- Art., Art. no. Article number
- ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
- BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
- BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
- BCF Bioconcentration factor
- BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
- BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
- BMGV Biological monitoring guidance value (EH40, UK)
- BOD Biochemical oxygen demand
- BSEF Bromine Science and Environmental Forum
- bw body weight
- CAS Chemical Abstracts Service
- CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids



GB

Page 16 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 26.09.2018 / 0002  
 Replacing version dated / version: 15.05.2017 / 0001  
 Valid from: 26.09.2018  
 PDF print date: 27.09.2018  
 PAG OIL SP-A2  
 Art.: 8FX 351 213-141

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques  
 CIPAC Collaborative International Pesticides Analytical Council  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 COD Chemical oxygen demand  
 CTFA Cosmetic, Toiletry, and Fragrance Association  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 DT50 Dwell Time - 50% reduction of start concentration  
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EC European Community  
 ECHA European Chemicals Agency  
 EEA European Economic Area  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 ERC Environmental Release Categories  
 ES Exposure scenario  
 etc. et cetera  
 EU European Union  
 EWC European Waste Catalogue  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane  
 HGWP Halocarbon Global Warming Potential  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC Intermediate Bulk Container  
 IBC (Code) International Bulk Chemical (Code)  
 IC Inhibitory concentration  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 LC lethal concentration  
 LC50 lethal concentration 50 percent kill  
 LCLo lowest published lethal concentration  
 LD Lethal Dose of a chemical  
 LD50 Lethal Dose, 50% kill  
 LDLo Lethal Dose Low  
 LOAEL Lowest Observed Adverse Effect Level  
 LOEC Lowest Observed Effect Concentration  
 LOEL Lowest Observed Effect Level  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 NIOSH National Institute of Occupational Safety and Health (United States of America)  
 NOAEC No Observed Adverse Effective Concentration

GB

Page 17 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 26.09.2018 / 0002  
Replacing version dated / version: 15.05.2017 / 0001  
Valid from: 26.09.2018  
PDF print date: 27.09.2018  
PAG OIL SP-A2  
Art.: 8FX 351 213-141

NOAEL No Observed Adverse Effect Level  
NOEC No Observed Effect Concentration  
NOEL No Observed Effect Level  
ODP Ozone Depletion Potential  
OECD Organisation for Economic Co-operation and Development  
org. organic  
PAH polycyclic aromatic hydrocarbon  
PBT persistent, bioaccumulative and toxic  
PC Chemical product category  
PE Polyethylene  
PNEC Predicted No Effect Concentration  
POCP Photochemical ozone creation potential  
ppm parts per million  
PROC Process category  
PTFE Polytetrafluorethylene  
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
SADT Self-Accelerating Decomposition Temperature  
SAR Structure Activity Relationship  
SU Sector of use  
SVHC Substances of Very High Concern  
Tel. Telephone  
ThOD Theoretical oxygen demand  
TOC Total organic carbon  
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)  
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))  
VOC Volatile organic compounds  
vPvB very persistent and very bioaccumulative  
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).  
WHO World Health Organization  
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.  
No responsibility.

These statements were made by:

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