

Page 1 of 15
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 11.12.2013 / 0009
Replaces revision of / Version: 23.07.2013 / 0008
Valid from: 11.12.2013
PDF print date: 13.12.2013
Top Tec 4200 5W-30 60L Art.: 3709

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

Top Tec 4200 5W-30 60L
Art.: 3709

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

Relevant identified uses of the substance or mixture:

Motor oil
Sector of use [SU]:
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
SU21 - Consumer uses: Private households (=general public = consumers)
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Chemical product category [PC]:
PC17 - Hydraulic fluids
PC24 - Lubricants, greases, release products
Process category [PROC]:
PROC 1 - Use in closed process, no likelihood of exposure.
PROC 2 - Use in closed, continuous process with occasional controlled exposure
PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC20 - Heat and pressure transfer fluids in dispersive, professional use but closed systems
Article Categories [AC]:
AC99 - Not required.
Environmental Release Category [ERC]:
ERC 4 - Industrial use of processing aids in processes and products, not becoming part of articles
ERC 7 - Industrial use of substances in closed systems
ERC 9a - Wide dispersive indoor use of substances in closed systems
ERC 9b - Wide dispersive outdoor use of substances in closed systems

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH, Jerg-Wieland-Straße 4, D-89081 Ulm-Lehr
Telephone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

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

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

Tel.: (+49) 0731-1420-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

Dangerous for the environment, R52-53

2.2 Label elements

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

EUH210-Safety data sheet available on request.

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.

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

Product can compose a film on the water surface, which can prevent oxygen exchange.

Hazardous to drinking water, on escape of even small quantities.

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	
Registration number (REACH)	01-2119474889-13-XXXX
Index	649-483-00-5
EINECS, ELINCS, NLP	276-738-4
CAS	CAS 72623-87-1
content %	20-40
Classification according to Directive 67/548/EEC	---
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304
Distillates (petroleum), hydrotreated heavy paraffinic	
Registration number (REACH)	01-2119484627-25-XXXX
Index	649-467-00-8
EINECS, ELINCS, NLP	265-157-1
CAS	CAS 64742-54-7
content %	1-<10
Classification according to Directive 67/548/EEC	---
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304
Baseoil - unspecified *	
Registration number (REACH)	-
Index	---
EINECS, ELINCS, NLP	-
CAS	CAS ---
content %	1-<10
Classification according to Directive 67/548/EEC	---
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304
Zinc O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	
Substance with specific conc. limit(s) acc. to REACH-registration	
Registration number (REACH)	01-2119953275-34-XXXX
Index	---
EINECS, ELINCS, NLP	218-679-9
CAS	CAS 2215-35-2
content %	0,1-<1
Classification according to Directive 67/548/EEC	Irritant, Xi, R38 Irritant, Xi, R41 Dangerous for the environment, N, R51 Dangerous for the environment, R53

(GB)

Page 3 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	Substance with specific conc. limit(s) acc. to REACH-registration
Registration number (REACH)	01-2119493626-26-XXXX
Index	---
EINECS, ELINCS, NLP	283-392-8
CAS	CAS 84605-29-8
content %	0,1-<1
Classification according to Directive 67/548/EEC	Irritant, Xi, R38 Irritant, Xi, R41 Dangerous for the environment, N, R51 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
2,6-tert-butylphenol	
Registration number (REACH)	01-2119490822-33-XXXX
Index	---
EINECS, ELINCS, NLP	204-884-0
CAS	CAS 128-39-2
content %	0,1-<0,25
Classification according to Directive 67/548/EEC	Irritant, Xi, R38 Dangerous for the environment, N, R50 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

* The contained mineral oil can be described by one or more of the following numbers:

EINECS, ELINCS, NLP	Registration number (REACH)	Chemical name
265-157-1	01-2119484627-25-XXXX	Distillates (petroleum), hydrotreated heavy paraffinic
265-169-7	01-2119471299-27-XXXX	Distillates (petroleum), solvent-dewaxed heavy paraffinic
265-158-7	01-2119487077-29-XXXX	Distillates (petroleum), hydrotreated light paraffinic
265-159-2	01-2119480132-48-XXXX	Distillates (petroleum), solvent-dewaxed light paraffinic

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
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.

Unsuitable cleaning product:

Solvent
Thinners

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. 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.

(GB)

Page 4 of 15
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 11.12.2013 / 0009
Replaces revision of / Version: 23.07.2013 / 0008
Valid from: 11.12.2013
PDF print date: 13.12.2013
Top Tec 4200 5W-30 60L Art.: 3709

The following may occur:

Irritation of the eyes
with long-term contact:
Drying of the skin.
Dermatitis (skin inflammation)
Oil acne
On vapour formation:
irritation of the respiratory tract
Ingestion:
Gastrointestinal disturbances
Nausea
Vomiting

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

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂
Foam
Dry extinguisher
Cool container at risk with water.

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 sulphur
Oxides of phosphorus
Toxic pyrolysis products.
Flammable vapour/air mixtures

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
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
Avoid formation of oil mist.
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.
Oil binder
Do not wash away with water or watery cleaning agents.

6.4 Reference to other sections

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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

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

7.1.1 General recommendations

Avoid formation of oil mist.
 Ensure good ventilation.
 Keep away from sources of ignition - Do not smoke.
 Do not heat to temperatures close to flash point.
 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.
 Impermeable floor.
 Protect against moisture and store closed.
 Protect from direct sunlight and warming.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

(GB) Chemical Name	Oil mist, mineral	Content %:
WEL-TWA: 5 mg/m3 (ACGIH)	WEL-STEL: 10 mg/m3 (ACGIH)	---
BMGV: ---	Other information: ---	

(GB) WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | 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.

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,1	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	8,31	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,24	mg/kg bw/day	
Consumer	Human - dermal	Long term, local effects	DNEL	6,1	mg/kg bw/day	

Page 6 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,11	mg/m ³	
	Environment - freshwater		PNEC	0,004	mg/l	
	Environment - marine		PNEC	0,0046	mg/l	
	Environment - soil		PNEC	0,0548	mg/kg	

Distillates (petroleum), hydrotreated heavy paraffinic						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,4	mg/m ³	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,2	mg/m ³	
	Environment - oral (animal feed)		PNEC	9,33	mg/kg feed	

8.2 Exposure controls

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.

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 (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:

Protective gloves, oil resistant (EN 374)

If applicable

Protective nitrile gloves (EN 374)

Permeation time (penetration time) in minutes:

>480

Minimum layer thickness in mm:

0,5

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part III were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

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

Respiratory protection:

Normally not necessary.

With oil mist formation:

Filter A2 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.

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

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

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:	Brown
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	-48 °C
Initial boiling point and boiling range:	Not determined
Flash point:	230 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,855 g/ml
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	71 mm ² /s (40°C)
Viscosity:	12,3 mm ² /s (100°C)
Explosive properties:	Not determined
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

See also section 7.

Heating, open flame, ignition sources

Protect from humidity.

10.5 Incompatible materials

See also section 7.

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

GB

Page 8 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

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

Top Tec 4200 5W-30 60L
Art.: 3709

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.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,53	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:					OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant, Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:					OECD 406 (Skin Sensitisation)	Not sensitizing
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity (in vitro):					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Carcinogenicity:					OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:					OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):						No indications of such an effect.
Aspiration hazard:						Asp. Tox. 1

(GB)

Page 9 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Teratogenicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative
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Distillates (petroleum), hydrotreated heavy paraffinic						
Toxicity/effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						Not sensitizing
Aspiration hazard:						Yes

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts						
Toxicity/effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>20000	mg/kg	Rat	IUCLID Chem. Data Sheet (ESIS)	
Acute toxicity, by dermal route:	LD50	>3200	mg/kg	Rabbit	IUCLID Chem. Data Sheet (ESIS)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant

2,6-tert-butylphenol						
Toxicity/effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>10000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	10000	mg/kg	Rabbit		
Symptoms:						burns, nausea and vomiting, sore throat, stomach pain

SECTION 12: Ecological information

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

Top Tec 4200 5W-30 60L Art.: 3709							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							Isolate as much as possible with an oil separator.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment:							n.d.a.
Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	NOEC/NOEL	96h	>=100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	

GB

Page 10 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Toxicity to fish:	LL50	96h	> 100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	NOEC/NOEL	21d	10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
Toxicity to daphnia:	NOEC/NOEL	48h	>10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	EL50	48h	>10000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	NOEC/NOEL	72h	>=100	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:						OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable
Bioaccumulative potential:	Log Kow		>6				A notable biological accumulation potential has to be expected (LogPow > 3).
Results of PBT and vPvB assessment:							No PBT substance, No vPvB substance
Toxicity to bacteria:	NOEC/NOEL	10min	>1,93	mg/l		DIN 38412 T.8	

Distillates (petroleum), hydrotreated heavy paraffinic

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Persistence and degradability:							Not readily biodegradable
Water solubility:							Insoluble

Zinc O,O',O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Persistence and degradability:		28d	1,5	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Bioaccumulative potential:	Log Pow		2,2				

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	10-100	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	1-10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	LC50	48h	10-100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	

Page 11 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Toxicity to algae:	EC50	96h	1-5	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	1,5	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Bioaccumulative potential:	Log Pow		0,6				
Toxicity to bacteria:	EC50	3h	>10000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

2,6-tert-butylphenol

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	13	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EC50	48h	>0,45	mg/l			
Toxicity to daphnia:	EC50	48h	0,45		Daphnia magna		
Persistence and degradability:		5d	<50	%			Not readily biodegradable
Bioaccumulative potential:	Log Pow		4,5				
Water solubility:			4,11	mg/l			20°C

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. (2001/118/EC, 2001/119/EC, 2001/573/EC)

13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils

Recommendation:

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

15 01 01 paper and cardboard packaging

15 01 02 plastic packaging

15 01 04 metallic packaging

Empty container completely.

Uncontaminated packaging can be recycled.

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

SECTION 14: Transport information

General statements

UN number: n.a.

Transport by road/by rail (ADR/RID)

UN proper shipping name: n.a.

Transport hazard class(es): n.a.

GB

Page 12 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

Packing group: n.a.
 Classification code: n.a.
 LQ (ADR 2013): n.a.
 LQ (ADR 2009): n.a.
 Environmental hazards: Not applicable
 Tunnel restriction code:

Transport by sea (IMDG-code)

UN proper shipping name:
 Transport hazard class(es): n.a.
 Packing group: n.a.
 Marine Pollutant: n.a.
 Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:
 Transport hazard class(es): n.a.
 Packing group: n.a.
 Environmental hazards: Not applicable

Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

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

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections: 3, 11, 12

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

Not applicable

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

- 38 Irritating to skin.
- 41 Risk of serious damage to eyes.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 53 May cause long-term adverse effects in the aquatic environment.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

- Asp. Tox. — Aspiration hazard
- Skin Irrit. — Skin irritation
- Eye Dam. — Serious eye damage
- Aquatic Chronic — Hazardous to the aquatic environment - chronic
- Aquatic Acute — Hazardous to the aquatic environment - acute

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 11.12.2013 / 0009
 Replaces revision of / Version: 23.07.2013 / 0008
 Valid from: 11.12.2013
 PDF print date: 13.12.2013
 Top Tec 4200 5W-30 60L Art.: 3709

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
 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

Page 14 of 15
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 11.12.2013 / 0009
Replaces revision of / Version: 23.07.2013 / 0008
Valid from: 11.12.2013
PDF print date: 13.12.2013
Top Tec 4200 5W-30 60L Art.: 3709

incl. including, inclusive
IUCILID 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
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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GB

Page 15 of 15

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

Revised on / Version: 11.12.2013 / 0009

Replaces revision of / Version: 23.07.2013 / 0008

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Top Tec 4200 5W-30 60L Art.: 3709