



FST6 0W30 C2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/01/2017 Revision date: 16/11/2020 Supersedes version of: 13/01/2017 Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Name : FST6 0W30 C2
Product code : 518
Article number : 51800

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Industrial/Professional use spec : Used in closed systems
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
Maxwellstraat 41
3316 GP Dordrecht
Nederland
T 0031 78 651 2322 - F 0031 78 617 4848
mjkooijman@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 54924171
During office hours: 8.30 t/m 17:00 h

Country	Official advisory body	Address	Emergency number	Comment
	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

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2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Phenol, dodecyl-, branched(121158-58-5)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Baseoil - unspecified	CAS-No.: 64742-54-7 EC-No.: 265-157-1 EC Index-No.: 649-467-00-8 REACH-no: 01-2119484627-25	50 – 75	Asp. Tox. 1, H304
1-Decene, homopolymer, hydrogenated	CAS-No.: 68037-01-4 EC-No.: 500-183-1 REACH-no: 01-2119486452-34	10 – 25	Asp. Tox. 1, H304
Bis(nonylphenyl)amine	CAS-No.: 36878-20-3 EC-No.: 253-249-4 REACH-no: 01-2119488911-28	1 – 2.4	Aquatic Chronic 4, H413
Calcium branched alkyl phenate sulphide (overbased)	-	1 – 2.4	Aquatic Chronic 4, H413
Zinc (O,O,O,O-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	EC-No.: 218-679-9 REACH-no: 01-2119953275-34	0.1 – 0.99	Skin Irrit. 2, H315 Eye Dam. 1, H318
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	CAS-No.: 84605-29-8 EC-No.: 283-392-8 REACH-no: 01-2119493626-26	0.1 – 0.99	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Phenol, dodecyl-, branched substance listed as REACH Candidate (Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP))	CAS-No.: 121158-58-5 EC-No.: 310-154-3 REACH-no: 01-2119513207-49	0.01 – 0.03	Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360F Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: No special measures required.
First-aid measures after skin contact	: Wash skin thoroughly with mild soap and water.
First-aid measures after eye contact	: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Obtain emergency medical attention.

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

Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water haze. Foam. Powder. Dry chemical.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable protective clothing and gloves.
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6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and gloves.
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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Impound and recover large spill by mixing it with inert granular solids.
Methods for cleaning up	: Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.
Other information	: May be dangerously slippery if spilled. Use suitable disposal containers.

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6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.

Handling temperature : < 40 °C

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area.

Storage temperature : < 40 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Protective goggles. Gloves.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses			EN 166

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8.2.2.2. Skin protection

Skin and body protection:

No special clothing/skin protection equipment is recommended under normal conditions of use.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Safety gloves	Wear suitable gloves resistant to chemical penetration				EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

No special protection required where adequate ventilation is maintained.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow-brown.
Appearance	: Oily liquid.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 200 °C (ASTM D92)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 49 mm ² /s (40°C)
Solubility	: Slightly soluble, the product remains on the water surface.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 844 kg/m ³ (15°C)
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizers. Acids. Bases.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

1-Decene, homopolymer, hydrogenated (68037-01-4)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	5.2 mg/l/4h

Bis(nonylphenyl)amine (36878-20-3)

LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rat	> 2000 mg/kg OECD 402

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

LD50 oral rat	2230 mg/kg OECD 401
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Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Additional information : <3% DMSO (IP346)
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	49 mm ² /s (40°C)
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Component	
Phenol, dodecyl-, branched(121158-58-5)	The substance is identified for having endocrine disrupting properties but there is no additional data available

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : This product contains one or more components that have a branched chain alkylphenol impurity which is very toxic to aquatic organisms (listed in chapter 3). The components containing the impurity have been tested and are not toxic to it aquatic organizations. Therefore, the data in Chapter 3 on the alkylphenol impurity cannot be used to classify the product some concerns toxicity to aquatic organisms.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

1-Decene, homopolymer, hydrogenated (68037-01-4)

LC50 - Fish [1]	> 1000 mg/kg
LC50 - Fish [2]	> 750 mg/l
EC50 - Crustacea [1]	190 mg/l

Bis(nonylphenyl)amine (36878-20-3)

LC50 - Fish [1]	> 100 mg/l OECD 203 (Danio rerio)
EC50 - Crustacea [1]	> 100 mg/l (Daphnia magna)
EC50 72h - Algae [1]	100 mg/l OECD 201 (Desmodesmus subspicitus)

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

LC50 - Fish [1]	4.5 mg/l Oncorhynchus mykiss
LC50 - Fish [2]	46 mg/l Cyprinodon variegatus
EC50 - Crustacea [1]	23 mg/l
EC50 72h - Algae [1]	21 mg/l
NOEC (chronic)	0.4 mg/l
NOEC chronic fish	1.8 mg/l Oncorhynchus mykiss

Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)

LC50 - Fish [1]	4.5 mg/l oncorhynchus mykiss
LC50 - Fish [2]	46 mg/l cyprinodon varietagus
EC50 - Crustacea [1]	23 mg/l
EC50 - Crustacea [2]	0.8 mg/l 21d
EC50 - Other aquatic organisms [2]	10000 mg/l 0.1d - chlorophyta
EC50 72h - Algae [1]	21 mg/l 3d - chlorophyta

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Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
NOEC (acute)	1.8 mg/l 4d - oncorhynchus mykiss
NOEC (chronic)	10 mg/l 2d - daphnia
NOEC chronic fish	0.4 mg/l 21d - daphnia
NOEC chronic algae	10 mg/l 3d - chlorophyta

12.2. Persistence and degradability

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Persistence and degradability	Not soluble in water, so only minimally biodegradable.
1-Decene, homopolymer, hydrogenated (68037-01-4)	
Biodegradation	2 % 28DY @ OECD TG 301D
Bis(nonylphenyl)amine (36878-20-3)	
Biodegradation	1 % @ 28d
Zinc (O,O,O,O-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	
Biodegradation	1.5 % Sturm @28d
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Biodegradation	1.5 % 28d - OECD TG 301 B

12.3. Bioaccumulative potential

1-Decene, homopolymer, hydrogenated (68037-01-4)	
Partition coefficient n-octanol/water (Log Pow)	0.9 @ 23°C
Bis(nonylphenyl)amine (36878-20-3)	
Partition coefficient n-octanol/water (Log Pow)	> 7.6
Zinc (O,O,O,O-tetrakis (1,3-dimethylbutyl) bis (phosphorodithioate)	
Bioconcentration factor (BCF REACH)	2.2 @0.1d
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts (84605-29-8)	
Partition coefficient n-octanol/water (Log Kow)	0.56 measurements

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Phenol, dodecyl-, branched (121158-58-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Component	
Phenol, dodecyl-, branched(121158-58-5)	The substance is identified for having endocrine disrupting properties but there is no additional data available

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12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with / / ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations $\geq 0.1\%$ or SCL: Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) (EC 310-154-3, CAS 121158-58-5)

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Issue date	Modified	
	Revision date	Modified	
	Supersedes	Removed	
1.1	Article number	Removed	
1.1	Other means of identification	Added	
2.2	EUH-statements	Modified	
3	Composition/information on ingredients	Modified	
8.2	Hand protection	Modified	
9.1	Viscosity, kinematic	Modified	
9.1	Density	Modified	
11.1	Additional information	Added	
12.1	Ecology - general	Added	

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Indication of changes			
Section	Changed item	Change	Comments
15.2	Chemical safety assessment	Added	

Abbreviations and acronyms:	
	Abbreviations and acronyms: RID: Regulations Concerning the International Transport of Dangerous Goods by Rail ICAO: International Civil Aviation Organization ADR: 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) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H360F	May damage fertility.
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.
H413	May cause long lasting harmful effects to aquatic life.
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.