SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 081914

EVOLUTION 900 FT 0W-40

Date of the previous version: 2015-03-31 **Revision Date:** 2016-06-17 **Version** 2.01

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name **EVOLUTION 900 FT 0W-40**
Number BY4
Substance/mixture Mixture

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

Identified uses Motor oil.

1.3. Details of the supplier of the safety data sheet

Supplier

TOTAL LUBRIFIANTS
562 Avenue du Parc de L'ile
92029 Nanterre Cedex
FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71

For further information, please contact:

Contact Point HSE
E-mail Address rm.msds-lubs@total.com

1.4. Emergency telephone number

+33 1 49 00 00 49 (24h/24, 7d/7)
France - ORFILA (INRS) Tél : +33 (0)1 45 42 59 59
In France : - PARIS : Hôpital Fernand Widal 200, rue du Faubourg Saint-Denis 75475 Paris Cédex 10 , Tel : 01.40.05.48.48. - MARSEILLE : Hopital Salvator, 249 bd Ste Marguerite 13274 Marseille cedex 5, Tel : 04.91.75.25.25. - LYON : Hopital Edouard Herriot, 5 place d'Arsonvol, 69437 Lyon cedex 3, Tel : 04.72.11.69.11. - NANCY : Hopital central, 29 Av du Mal De Lattre de Tassigny, 54000 Nancy, Tel : 03.83.32.36.36 ou le SAMU : Tel (15)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008 ***
*For the full text of the H-Statements mentioned in this Section, see Section 2.2.****

Classification
The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008***
Serious eye damage/eye irritation - Category 2*** - (H319)***

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2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Signal Word
WARNING***

Hazard Statements ***
H319 - Causes serious eye irritation***

Precautionary Statements
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P280 - Wear eye protection/ face protection***

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.***

Environmental properties Should not be released into the environment.***

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Chemical nature The product is made from refined mineral base oils and synthetic oils .

Hazardous ingredients

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Reg. 1272/2008)
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated***	-	01-2119486452-34	68037-01-4	40-<50	Asp. Tox. 1 (H304)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	276-738-4***	01-2119474889-13	72623-87-1	20-<30	Asp. Tox. 1 (H304)
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***	298-577-9***	01-2119543726-33	93819-94-4	1-<2.5	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.
The product is made from synthetic base oils (Polyalfaolefins) .

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For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first-aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.***

Skin contact Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.

Inhalation Move to fresh air.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

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

Eye contact Causes serious eye irritation.***

Skin contact Not classified.

Inhalation Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Carbon dioxide (CO_2). ABC powder. Foam. Water spray or fog.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

5.3. Advice for fire-fighters

Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.
Other information	Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information	Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

General Information	Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Personal Protective Equipment	See Section 8 for more detail.
Waste treatment	See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling	When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
Prevention of fire and explosion	Take precautionary measures against static discharges: Ground/bond containers, tanks and transfer/receiving equipment.
Hygiene measures	Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

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7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.

Materials to Avoid

Strong oxidizing agents.

7.3. Specific end uses

Specific use(s)

No information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Legend

See section 16

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1				5.4 mg/m³/8h (aerosol - inhalation)
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)*** 93819-94-4			0.58 mg/kg Dermal 8.31 mg/m³ Inhalation	

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1				1.2 mg/m³/24h (aerosol - inhalation)
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***			0.29 mg/kg Dermal 2.11 mg/m³ Inhalation 0.24 mg/kg Oral	

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Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1						9.33 mg/kg food
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) *** 93819-94-4	0.004 mg/l fw 0.0046 mg/l mw 0.021 mg/l or	0.0116 mg/kg dw fw 0.00116 mg/kg dw mw	0.00528 mg/kg soil dw		100 mg/l	10.67 mg/kg food

8.2. Exposure controls

Occupational Exposure Controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal Protective Equipment

General Information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***

Eye Protection If splashes are likely to occur, wear:. Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

Hand Protection Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency.***

Environmental exposure controls

General Information The product should not be allowed to enter drains, water courses or the soil.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance		limpid***	
Color		yellow	
Physical State @20°C		liquid	
Odor		Characteristic	
Odor Threshold		No information available	
Property	**Values**	**Remarks**	**Method**
pH		Not applicable***	
Melting point/range		Not applicable***	
Boiling point/boiling range		No information available	
Flash point	**> 200 °C** > 392 °F		
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
upper ***	***	No information available***	***
Lower ***	***	No information available***	***
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	*** 0.844***	@ 15 °C***	
Density	844 kg/m³	@ 15 °C	
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow **No information available***			
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	76.4 mm2/s	@ 40 °C	ISO 3104
	13.5 mm2/s	@ 100 °C	ISO 3104
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable***		
Possibility of hazardous reactions	No information available		

9.2. Other information

Freezing Point	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information	No information available.

10.2. Chemical stability

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Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous Reactions None under normal processing.

10.4. Conditions to Avoid

Conditions to Avoid Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

10.5. Incompatible Materials

Materials to Avoid Strong oxidizing agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity Local effects Product Information

Skin contact . Not classified.
Eye contact . Causes serious eye irritation.***
Inhalation . Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion . Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
ATEmix (oral) 21,505.00*** mg/kg***
ATEmix (dermal) 20,725.00*** mg/kg***
ATEmix (inhalation-dust/mist) 7.70*** mg/l***

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated***	LD50 > 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rat)	LC50 (4h) > 5.2 mg/l (Rat)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***	LD50 2600 mg/kg (Rat)	LD50 > 3160 mg/kg (Rabbit - OECD 402)	

Sensitization

Sensitization Not classified as a sensitizer.

Specific effects

Carcinogenicity This product is not classified carcinogenic. During use in engines, contamination of oil with

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low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

Mutagenicity This product is not classified as mutagenic.

Reproductive toxicity This product does not present any known or suspected reproductive hazards.

Repeated Dose Toxicity

Subchronic toxicity No information available.

Target Organ Effects (STOT)

Other information

Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated*** 68037-01-4	EL50 (72h) > 1000 mg/l (Scenedesmus capricornutum - OECD 201)	EC50 (48h) 190 mg/l (Daphnia magna) LE50(48h) > 1000 mg/l (Daphnia magna)	LC50(96h) > 750 mg/l (Pimephales promelas) LL50(96h) > 1000 mg/l (Pimephales promelas)	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202) LL50 (24h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (48h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (72h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***	EbC50 (96h) 2.1 mg/l Selenastrum capricornutum (OECD 201)	EL50 (48h) 5.4 mg/l Daphnia magna (OECD 202)	LC50 (96h) 4.5 mg/l Oncorhynchus mykiss (OECD 203)	

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Chronic aquatic toxicity - Product Information
No information available.

Chronic aquatic toxicity - Component Information
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Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated*** 68037-01-4	NOELR (72h) 1000 mg/l (Scenedesmus capricornutum - OECD 201)	NOELR (21d) 125 mg/l (Daphnia magna - OECD 211)		
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	NOEL (72h) >= 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox) NOEL (96h) > 100 mg/l (Pimephales promelas - OECD 203)	

Effects on terrestrial organisms
No information available.

12.2. Persistence and degradability

General Information
No information available.

12.3. Bioaccumulative potential

Product Information No information available.

logPow No information available***
Component Information .***

Chemical Name	log Pow
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** - 72623-87-1	4.1
zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)*** - 93819-94-4	0.9

12.4. Mobility in soil

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility.

Air Loss by evaporation is limited.

Water Insoluble. The product spreads on the surface of the water.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

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12.6. Other adverse effects

General Information No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues / Unused Products Should not be released into the environment. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration. After use, this oil must be sent to a licensed waste oil facility. Incorrect disposal of used oil poses a risk to the environment. Mixture with other waste types such as solvents, brake- and cooling liquids is forbidden.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

EWC Waste Disposal No. The following Waste Codes are only suggestions:. 13 02 05. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

ADR/RID Not regulated

IMDG/IMO Not regulated

ICAO/IATA Not regulated

ADN Not regulated

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available

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15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H318 - Causes serious eye damage
H411 - Toxic to aquatic life with long lasting effects***

Abbreviations, acronyms
ACGIH = American Conference of Governmental Industrial Hygienists
bw = body weight
bw/day = body weight/day
EC x = Effect Concentration associated with x% response
GLP = Good Laboratory Practice
IARC = International Agency for Research of Cancer
LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals
LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals
LL = Lethal Loading
NIOSH = National Institute of Occupational Safety and Health
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
NOEL = No Observed Effect Level
OECD = Organization for Economic Co-operation and Development
OSHA = Occupational Safety and Health Administration
UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material
DNEL = Derived No Effect Level
PNEC = Predicted No Effect Concentration
dw = dry weight
fw = fresh water
mw = marine water
or = occasional release

Legend Section 8

TWA: Time Weight Average
STEL: Short Time Exposure Limit
PEL: Permissible exposure limit
REL: Recommended exposure limit
TLV: Threshold Limit Values

+	Sensitizer	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

Revision Date: 2016-06-17
Revision Note *** Indicates updated section.
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained

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herein is given in good faith and is accurate to the best of knowledge at the date indicated above.It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk.The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity.The user bears sole liability for the precautions required when using the product.The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive.It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet