



**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006

SDS # : 083160

**TRANSMISSION DUAL 9 FE  
75W90**

Date of the previous version: not applicable

Revision Date: 2015-04-14

Version 1

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

1.1. Product identifier

<b>Product name</b>	<b>TRANSMISSION DUAL 9 FE 75W90</b>
<b>Number</b>	DHH
<b>Substance/mixture</b>	Mixture

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

<b>Identified uses</b>	Transmission fluid.
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1.3. Details of the supplier of the safety data sheet

<b>Supplier</b>	TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71
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For further information, please contact:

<b>Contact Point</b>	HSE
<b>E-mail Address</b>	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)



SDS # : 083160

# TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

**DIRECTIVE 67/548/EEC or 1999/45/EC**

For the full text of the R-phrases mentioned in this Section, see Section 16

The substance/mixture is non-dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments

**Symbol(s)**

Not classified

2.2. Label elements

**Labelled according to** REGULATION (EC) No 1272/2008

Contains Polysulfides, di-tert-Bu

**Signal Word**

WARNING

**Hazard Statements**

H319 - Causes serious eye irritation

**Precautionary Statements**

P280 - Wear eye protection/ face protection

Contains Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl May produce an allergic reaction

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
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3.2. Mixture**Chemical nature**

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

**Hazardous ingredients**



SDS # : 083160

# TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Dir. 67/548)	Classification (Reg. 1272/2008)
Polysulfides, di-tert-Bu	273-103-3	01-2119540515-43	68937-96-2	<5	Xi;R38 R43 R52/53	Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14-tert-alkyl	931-384-6	01-2119493620-38	^	<2	Xn;R22 Xi;R41 R43 N;R51-53	Acute Tox. 4 (H302) Aquatic Chronic 2 (H411) Eye Dam. 1 (H318) Flam. Liq. 3 (H226) Skin Sens. 1 (H317)

**Additional information** Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

**For the full text of the R-phrases mentioned in this Section, see Section 16.**

**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

<b>General advice</b>	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Obtain medical advice from a specialist.
<b>Skin contact</b>	Remove contaminated clothing and shoes. Wash skin with soap and water. Wash contaminated clothing before reuse. In the case of skin irritation or allergic reactions see a physician.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	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

<b>Eye contact</b>	Causes serious eye irritation.
<b>Skin contact</b>	Not classified. May produce an allergic reaction.
<b>Inhalation</b>	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
<b>Ingestion</b>	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.



SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

### Section 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing media

**Suitable Extinguishing Media** Carbon dioxide (CO<sub>2</sub>). 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 produces potentially toxic gases such as carbon monoxide and carbon dioxide, Sulfur oxides, Phosphorous oxides, Nitrogen oxides (NO<sub>x</sub>), Zinc oxides, Mercaptans, Hydrogen sulphide.

#### 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 materials 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.



SDS # : 083160

# TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	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.
<b>Prevention of fire and explosion</b>	Take precautionary measures against static discharges: Ground/bond containers, tanks and transfer/receiving equipment.
<b>Hygiene measures</b>	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.

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

<b>Technical measures/Storage conditions</b>	Keep away from food, drink and animal feedingstuffs. Keep in a bonded 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.
<b>Materials to Avoid</b>	Oxidizing agents. Acids.

### 7.3. Specific end uses

<b>Specific use(s)</b>	No information available.
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## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

<b>Exposure limits</b>	Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m <sup>3</sup> , NIOSH (REL) TWA 5 mg/m <sup>3</sup> , STEL 10 mg/m <sup>3</sup> , ACGIH (TLV) TWA 5 mg/m <sup>3</sup> (highly refined)
	Metalworking fluids: USA: NIOSH (REL) TWA 0.5 mg/m <sup>3</sup>
<b>Legend</b>	See section 16

**DNEL Worker (Industrial/Professional)**



SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Polysulfides, di-tert-Bu 68937-96-2			14.5 mg/m <sup>3</sup> inhalation 3.3 mg/kg bw/day dermal	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl ^			12.5 mg/kg/8h (dermal) 8.56 mg/m <sup>3</sup> /8h (inhalation) (ECHA CHEM)	

**DNEL Consumer**

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Polysulfides, di-tert-Bu 68937-96-2			2.6 mg/m <sup>3</sup> inhalation 1.66 mg/kg bw/day dermal	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl ^			6.25 mg/kg/24h (dermal) 2.2 mg/m <sup>3</sup> /24h (inhalation) 0.25 mg/kg/24h (oral) (ECHA CHEM)	

**Predicted No Effect Concentration  
(PNEC)**

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Polysulfides, di-tert-Bu 68937-96-2	0.00024 mg/l fw 0.000024 mg/l mw 0.0024 mg/l or	7589 mg/kg dw fw 758.9 mg/kg dw mw	1513 mg/kg dw		4.51 mg/l	
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl ^	0.0012 mg/l fw 0.00012 mg/l mw 0.064 mg/ or	3.13 mg/kg fw 0.313 mg/kg mw	2.54 mg/kg soil dw		24.33 mg/l	10 mg/kg food



SDS # : 083160

# TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

## 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/P2. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

##### Eye Protection

Tightly fitting safety goggles. Safety glasses with side-shields. Face-shield.

##### Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

##### Hand Protection

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.

### Environmental exposure controls

#### General Information

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

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Color	yellow To amber
Physical State @20°C	liquid
Odor	Characteristic

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		Not applicable	
Boiling point/boiling range		Not applicable	
Flash point	>= 150 °C >= 302 °F		ISO 2592 ISO 2592
Evaporation rate		No information available	



SDS # : 083160

# TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

<b>Flammability Limits in Air</b>		No information available
<b>Vapor Pressure</b>		No information available
<b>Vapor density</b>		No information available
<b>Density</b>	883 kg/m <sup>3</sup>	@ 15 °C
<b>Water solubility</b>		No information available
<b>Solubility in other solvents</b>		No information available
<b>logPow</b>		No information available
<b>Autoignition temperature</b>		No information available
<b>Viscosity, kinematic</b>	15.1 mm <sup>2</sup> /s	@ 100 °C
<b>Explosive properties</b>	Not explosive	
<b>Oxidizing Properties</b>	Not applicable	
<b>Possibility of hazardous reactions</b>	Not applicable	

## 9.2. Other information

No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

**General Information** No information available.

### 10.2. Chemical stability

**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** Oxidizing agents. Acids.

### 10.6. Hazardous Decomposition Products

**Hazardous Decomposition Products** None under normal use. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot, Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides, Phosphorous oxides, Mercaptans, Hydrogen sulphide.

## Section 11: TOXICOLOGICAL INFORMATION





SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

### 11.1. Information on toxicological effects

#### Acute toxicity Local effects Product Information

<b>Skin contact</b>	. Not classified. May produce an allergic reaction.
<b>Eye contact</b>	. Causes serious eye irritation.
<b>Inhalation</b>	. Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
<b>Ingestion</b>	. Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14-tert-alkyl	LD50 2000 mg/kg bw (Rat - OECD TG 401)		-

#### Sensitization

<b>Sensitization</b>	Not classified as a sensitizer: The supplier of one of the components contained within this formulation has indicated that they have data, which confirms that at the concentration used, no sensitisation classification is required . Contains sensitizer(s). May produce an allergic reaction.
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#### Specific effects

<b>Carcinogenicity</b>	This product is not classified carcinogenic.
<b>Mutagenicity</b>	This product is not classified as mutagenic.
<b>Reproductive toxicity</b>	This product does not present any known or suspected reproductive hazards.

#### Repeated Dose Toxicity

<b>Subchronic toxicity</b>	No information available.
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#### Target Organ Effects (STOT)

<b>Target Organ Effects (STOT)</b>	No information available.
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#### Other information

<b>Other adverse effects</b>	Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).
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Section 12: ECOLOGICAL INFORMATION
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SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

### 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
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl ^	EL50 (96h) > 15 mg (Selenastrum capricornutum - OECD 201) EC50 (96h) 6.4 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (96h) 15 mg/l (Pseudokirchnerella subcapitata - OECD 201) EC50 (96h) 6.4 mg/L (Selenastrum capricornutum- OECD TG 201) (ECHA CHEM)	EL50 (48h) ca. 91.4 mg/l (Daphnia magna - OECD 202)	LL50 (96h) ca. 24 mg/l (Oncorhynchus mykiss - OECD 203)	

#### Chronic aquatic toxicity - Product Information

No information available.

#### Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl ^	NOEC (96h) 1.7 mg/l (Pseudokirchnerella subcapitata - OECD 201) par NOEC (96h) 3.3 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (21d) 0.91 mg/l (Daphnia magna - OECD 211) NOEL (21d) 0.12 mg/l (Daphnia magna - OECD 211) EL50 (21d) 0.66 mg/l (Daphnia magna - OECD 211)	-	EC50 (3h) ca. 2433 mg/L (Activated Sludge, domestic - OECD TG 209) (ECHA CHEM)

#### Effects on terrestrial organisms

No information available.

### 12.2. Persistence and degradability

#### General Information

No information available.



SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

### 12.3. Bioaccumulative potential

**Product Information** No information available.

**logPow** No information available

#### Component Information

Chemical Name	log Pow
Polysulfides, di-tert-Bu - 68937-96-2	6
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl - ^	< 0.30 to >7.10 (OECD TG 117) (ECHA CHEM)

### 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.

### 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. 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 06.

**Other information** 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.



SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

### Section 14: TRANSPORT INFORMATION

<u>ADR/RID</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>ADN</u>	Not regulated

### Section 15: REGULATORY INFORMATION

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

European Union

International Inventories      No information available

Further information

No information available

#### 15.2. Chemical Safety Assessment

**Chemical Safety Assessment**      No information available

### Section 16: OTHER INFORMATION

#### **Full text of R-phrases referred to under sections 2 and 3**

R22 - Harmful if swallowed

R38 - Irritating to skin

R41 - Risk of serious damage to eyes

R43 - May cause sensitization by skin contact

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment



SDS # : 083160

## TRANSMISSION DUAL 9 FE 75W90

Revision Date: 2015-04-14

Version 1

---

**Full text of H-Statements referred to under sections 2 and 3**

H226 - Flammable liquid and vapor  
 H302 - Harmful if swallowed  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H411 - Toxic to aquatic life with long lasting effects  
 H412 - Harmful to aquatic life with long lasting effects

**Abbreviations, acronyms**

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+ Sensitizer

\*\* Hazard Designation

M: Mutagen

\*

C:

R:

Skin designation

Carcinogen

Toxic to reproduction

Revision Date: 2015-04-14

Revision Note \*\*\* Indicates updated section.

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**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 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