



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 32664

ELFMATIC G 3

Date of the previous version: 2015-11-06

Revision Date: 2016-01-22

Version 1.09

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

1.1. Product identifier

Product name	ELFMATIC G 3
Number	FUC
Substance/mixture	Mixture

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

Identified uses	Transmission fluid.
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1.3. Details of the supplier of the safety data sheet

Supplier	TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE 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:

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 not classified as dangerous according to Regulation (EC) No. 1272/2008***

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2.2. Label elementsLabelled according to **REGULATION (EC) No 1272/2008*******Hazard Statements**

None***

Precautionary Statements

None***

Supplemental Hazard Statements

EUH210 - Safety data sheet available on request***

Contains Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates **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

3.2. Mixture*****Hazardous ingredients**

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Reg. 1272/2008)
Distillates (petroleum), hydrotreated light paraffinic***	265-158-7	01-2119487077-29	64742-55-8	50-60	Asp. Tox. 1 (H304)
bis(nonylphenyl)amine***	253-249-4	01-2119488911-28	36878-20-3	1-2	Aquatic Chronic 4 (H413)
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates***	417-450-2	01-0000016426-70	^	0.1-0.9999	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)
Phenol, dodecyl-, branched***	310-154-3	01-2119513207-49	121158-58-5	0.03-0.04	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Irrit. 2 (H319) Repr. 2 (H361f) Skin Irrit. 2 (H315)

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

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

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General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids.
Skin contact	Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse. High pressure jets may cause skin damage. Take victim immediately to hospital.
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	Not classified.
Skin contact	Not classified. May produce an allergic reaction.
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.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Foam. Dry powder. Carbon dioxide (CO ₂). Water spray.
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.
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5.3. Advice for fire-fighters

Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit. In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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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.

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.

7.2. Conditions for safe storage, including any incompatibilities

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Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a banded 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)

Metalworking fluids:
USA: NIOSH (REL) TWA 0.5 mg/m³

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
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8				5.4 mg/m ³ /8h (aerosol - inhalation)
bis(nonylphenyl)amine*** 36878-20-3			0.62 mg/kg bw/day Dermal 4.37 mg/m ³ Inhalation	
Phenol, dodecyl-, branched*** 121158-58-5	166 mg/kg bw/day Dermal 44.18 mg/m ³ Inhalation		0.25 mg/kg bw/day Dermal 1.7621 mg/m ³ Inhalation	

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8				1.2 mg/m ³ /24h (aerosol - inhalation)
bis(nonylphenyl)amine*** 36878-20-3			0.31 mg/kg bw/day Dermal 1.09 mg/m ³ Inhalation 0.31 mg/kg bw/day Oral	

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Phenol, dodecyl-, branched*** 121158-58-5	50 mg/kg bw/day Dermal 13.26 mg/m ³ Inhalation 1.26 mg/kg bw/day Oral		0.075 mg/kg bw/day Dermal 0.79 mg/m ³ Inhalation 0.075 mg/kg bw/day Oral	
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Predicted No Effect Concentration (PNEC) ***

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
bis(nonylphenyl)amine*** 36878-20-3	0.1 mg/l fw 0.01 mg/l mw 1 mg/l or	132000 mg/kg dw fw 13200 mg/kg dw mw	263000 mg/kg dw		1 mg/l	
Phenol, dodecyl-, branched*** 121158-58-5	0.000074 mg/l fw 0.0000074 mg/l mw 0.00037 mg/l or	0.226 mg/kg fw dw 0.0266 mg/kg mw dw	0.118 mg/kg dw		100 mg/l	4 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

None under normal use conditions. 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.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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9.1. Information on basic physical and chemical properties

Appearance	limpid
Color	red
Physical State @20°C	liquid
Odor	Characteristic
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		No information available***	
Melting point/range		No information available	
Boiling point/boiling range		No information available***	
Flash point ***	> 198*** °C*** > 388*** °F***		
Evaporation rate		No information available***	
Flammability Limits in Air		No information available	
Vapor Pressure		No information available***	
Vapor density		No information available***	
Relative density ***	*** 0.830*** -*** 0.850***	@ 20 °C ***	***
Density	830*** - *** 850*** kg/m ³	@ 20 °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 ***	*** 40*** mm ² /s *** 6.9*** -*** 7.5***	@ 40 °C *** @ 100 °C ***	ISO 3104 *** 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	
Pour point ***	*** -39*** °C***	***	ISO 3016 ***

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information	No information available.
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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. Sulfur oxides. Phosphorous oxides. Nitrogen oxides (NOx). Hydrogen sulphide.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity Local effects Product Information****Skin contact** . Not classified. May produce an allergic reaction.**Eye 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.**Acute toxicity - Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated light paraffinic***	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
bis(nonylphenyl)amine***	LD50 > 5000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rat - OECD 402)	
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates***		LD50 > 2000 mg/kg (Rabbit)	
Phenol, dodecyl-, branched***	LD50 2700 mg/kg (Rat)	LD50 > 3160 mg/kg (Rat)	

Sensitization

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Sensitization Not classified as a sensitizer. Contains sensitizer(s). May produce an allergic reaction.

Specific effects

Carcinogenicity This product is not classified carcinogenic.
Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity This product does not present any known or suspected reproductive hazards. Contains a known or suspected reproductive toxin.

Chemical Name	European Union
Phenol, dodecyl-, branched*** 121158-58-5	Repr. 2 (H361f)

Repeated Dose Toxicity

Subchronic toxicity No information available.

Target Organ Effects (STOT)

Target Organ Effects (STOT) No information available.

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. 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 aquatic environmental hazard classification is required.

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
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8	EL50 (72h) > 100 mg/l (Pseudokirchneriella subcapitata - OCDE 201)	EL50 (48h) > 10000 mg/L (Daphnia magna - OCDE 202)	LL50 (96h) > 100 mg/L (Oncorhynchus mykiss - OCDE 203)	
bis(nonylphenyl)amine*** 36878-20-3	EC50 (72h) > 100 mg/l (Desmodesmus subspicatus - OECD 201)	EC50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	LC50 (96h) > 100 mg/l (Brachydanio rerio - OECD 203)	
Reaction product of: polyethylene-polyamine-(C1 6-C18)-alkylamides with monothio-(C2)-alkyl phosphonates*** ^	EC50 (72h) 22 mg/l (Selenastrum capricornutum - EU Method C.1)			

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Phenol, dodecyl-, branched*** 121158-58-5	EbC50 (72h) 0.15 mg/l (Scenedesmus subspicatus - OECD 201)	EC50(48h) 0.037 mg/l (Daphnia magna - static - OECD 202)	EL50(96h) 40 mg/l Pimephales promelas semi-static (OECD 203)	
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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
Distillates (petroleum), hydrotreated light paraffinic*** 64742-55-8		NOEL (21d) 10 mg/l (Daphnia magna - OCDE 211)	NOEL (14/28d) >1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Phenol, dodecyl-, branched*** 121158-58-5		NOEC(21d) 0.0037 mg/l (Daphnia magna - semi-static - OECD 211)		

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
bis(nonylphenyl)amine*** - 36878-20-3	7.7
Reaction product of: polyethylene-polyamine-(C16-C18)-alkylamides with monothio-(C2)-alkyl phosphonates*** - ^	6.6
Phenol, dodecyl-, branched*** - 121158-58-5	7.14

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 INFORMATIONADR/RID Not regulatedIMDG/IMO Not regulatedICAO/IATA Not regulatedADN 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

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H361f - Suspected of damaging fertility

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

H413 - May cause long lasting harmful effects to aquatic life***

Abbreviations, acronyms

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

OECD = Organization for Economic Co-operation and Development

bw = body weight

bw/day = body weight/day

GLP = Good Laboratory Practice

fw = fresh water

mw = marine water

or = occasional release

dw = dry weight

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

ACGIH = American Conference of Governmental Industrial Hygienists

IARC = International Agency for Research of Cancer

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

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

LL = Lethal Loading

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

NOAEL = No Observed Adverse Effect Level

EC x = Effect Concentration associated with x% response

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

** Hazard Designation

M: Mutagen

* Skin designation

C: Carcinogen

R: Toxic to reproduction

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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 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

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