



SAFETY DATA SHEET

According to Canadian Hazardous Products Regulations (HPR) (SOR/2015/17)

SDS # : 088189

RUBIA OPTIMA 1500 5W-40

Date of the previous version: not applicable

Revision Date: 2018-07-07

Version 1

1. IDENTIFICATION

Product identifier

Product name RUBIA OPTIMA 1500 5W-40

Other means of identification

Product Code(s) 088189

Number GWO
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Engine oil

Uses advised against Do not use for any purpose other than the one for which it is intended.

Details of the supplier of the safety data sheet

Supplier TOTAL CANADA INC.
220, LAFLEUR
LASALLE, QUEBEC
H8R 4C9
Tel: (514) 595-7579
Fax: (514) 595-5950

Contact Point service HSE

E-mail Address ProductSafety@total.com

Emergency telephone number

Emergency telephone 1-800-463-3955
Company Phone Number +1 866 928 0789 (24h/24, 7d/7)
+1 215 207 0061 (24h/24, 7d/7)

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation - Category 3

Label elements

Hazard Statements

Causes mild skin irritation

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Precautionary Statements - Response

Skin

If skin irritation occurs: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

Physical-Chemical Properties

Contaminated surfaces will be extremely slippery.

Environmental properties

The product may form an oil film on the water surface that may stop the oxygen exchange.
Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical nature

Mineral oil of petroleum origin.

Chemical Name	EC-No	CAS-No	Weight %
Distillates (petroleum), hydrotreated heavy paraffinic	265-157-1	64742-54-7	50<60
Distillates (petroleum), solvent-dewaxed heavy paraffinic	265-169-7	64742-65-0	10<20
Reaction products of 1-decene, 1-dodecene and 1-octene, hydrogenated	605-315-2	163149-28-8	3<5
Reaction products of 1-decene, hydrogenated	-	68649-12-7	3<5
10-ethyl-12-heptyl-11,13-dimethyltricosane; 8-ethyl-9,11-dimethyl-10-nonylnonadecane	604-767-8	151006-60-9	3<5
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate	406-040-9	125643-61-0	1<3
bis(nonylphenyl)amine	253-249-4	36878-20-3	1<3
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)	298-577-9	93819-94-4	1<2.5
Molybdenum polysulphide long chain alkyl dithiocarbamate	457-320-2	^	0.1<0.25

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

4. FIRST AID MEASURES**First aid measures for different exposure routes**

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. Keep eye wide open while rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse.
Inhalation	Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. If swallowed, do not induce vomiting - seek medical advice.
Protection of First-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Skin contact	Causes mild skin irritation. May produce an allergic reaction.
Eye contact	Not classified based on available data.
Inhalation	Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	No information available.

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

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Carbon dioxide (CO ₂). ABC powder. Foam. Water spray or fog.
<u>Unsuitable Extinguishing Media</u>	Do not use a solid water stream as it may scatter and spread fire.
<u>Special Hazard</u>	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. Combustion products include sulphur oxides (SO ₂ and SO ₃) and Hydrogen sulphide H ₂ S. Phosphorous oxides. Nitrogen oxides (NO _x). Mercaptans. Zinc oxides.
<u>Explosion Data</u>	
<u>Sensitivity to Mechanical Impact</u>	None.
<u>Sensitivity to Static Discharge</u>	None.
<u>Special protective equipment for fire-fighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

<u>General Information</u>	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.
<u>Other information</u>	See Section 12 for additional information.

Environmental precautions

<u>General Information</u>	Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses.
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Methods and material for containment and cleaning up

<u>Methods for containment</u>	Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.
<u>Methods for cleaning up</u>	Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. 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).

7. HANDLING AND STORAGE

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Precautions for safe handling**Advice on safe handling**

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. When using, do not eat, drink or smoke.

Prevention of fire and explosion

Take precautionary measures against static discharges.

Hygiene measures

Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended. 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. Use personal protective equipment as required. Avoid breathing vapors, mist or gas. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing. Avoid prolonged and repeated contact with the skin, especially with used or waste product.

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. Store at room temperature. Protect from moisture. Protect from frost, heat and sunlight. Keep in properly labeled containers.

Materials to Avoid

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**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

Exposure controls**Engineering Measures**

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the

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recommended equipment.

Individual protection measures, such as personal protective equipment

General Information	Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product ITSELF. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.
Eye/face 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.
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.
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 vapor/particulate. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties**

Appearance		limpid	
Color		No information available	
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		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range		No information available	
Flash point	>= 225 °C >= 437 °F	No information available	ASTM D 92 ASTM D 92.
Evaporation rate		No information available	
Flammability Limits in Air			

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upper		No information available	
Lower		No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	0.875	@ 15 °C	ASTM D1298
Density	875 kg/m ³	@ 15 °C	ASTM D1298
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		Not applicable	
Decomposition temperature		No information available	
Viscosity, kinematic	86 mm ² /s	@ 40 °C	ASTM D445
	14.4 mm ² /s	@ 100 °C	ASTM D445
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		
<u>Other information</u>			
Freezing Point		No information available	

10. STABILITY AND REACTIVITY

<u>Reactivity</u>	None under normal processing.
<u>Chemical stability</u>	Stable under recommended storage conditions.
<u>Possibility of hazardous reactions</u>	No dangerous reaction known under conditions of normal use. None under normal processing.
<u>Conditions to avoid</u>	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Take precautionary measures against static discharges. Strong oxidizing agents.
<u>Incompatible materials</u>	Strong oxidizing agents.
<u>Hazardous Decomposition Products</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Phosphorous oxides. Nitrogen oxides (NOx). Mercaptans. Combustion products include sulphur oxides (SO ₂ and SO ₃) and Hydrogen sulphide H ₂ S. Zinc oxides.

11. TOXICOLOGICAL INFORMATIONInformation on likely routes of exposure

Symptoms	No information available.
Skin contact	Causes mild skin irritation. May produce an allergic reaction.
Eye contact	Not classified based on available data.

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Inhalation

Not classified based on available data. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Ingestion

Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Acute toxicity - Product Information****Oral**

Not classified based on available data

Dermal

Not classified based on available data

Inhalation

Not classified based on available data

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	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)
Distillates (petroleum), solvent-dewaxed heavy paraffinic 64742-65-0	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5.53 mg/l (aerosol) (rat - OECD 403)
Reaction products of 1-decene, 1-dodecene and 1-octene, hydrogenated 163149-28-8	LD50 5000 mg/kg bw (rat - OECD 403)	LD50 2000 mg/kg bw (rat - OECD 402)	
Reaction products of 1-decene, hydrogenated 68649-12-7	LD50 > 5000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rabbit - OECD 402)	LC50 (4h) > 5000 mg/m ³ (Rat - Aerosol - OECD 403)
10-ethyl-12-heptyl-11,13-dimethyltri cosane; 8-ethyl-9,11-dimethyl-10-nonylnona decane 151006-60-9	LD50 5000 mg/kg bw (rat)	LD50 2000 mg/kg bw (rat - OECD 402)	LC50(4h) 5mg/L (rat - OECD 403)
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphen yl)propionate 125643-61-0	LD50 > 2000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rat - OECD 402)	
bis(nonylphenyl)amine 36878-20-3	LD50 > 5000 mg/kg (Rat - OECD 401)	LD50 > 2000 mg/kg (Rat - OECD 402)	
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) 93819-94-4	LD50 2600 mg/kg (Rat)	LD50 > 3160 mg/kg (Rabbit - OECD 402)	LC50(1h) > 2 mg/l (Rat - OECD Test Guideline 403)
Molybdenum polysulphide long chain alkyl dithiocarbamate complex ^	LD50 > 2000 mg/kg (Rat - OECD 425)	LD50 > 2000 mg/kg (Rat - OECD 402)	

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Skin corrosion/irritation

Irritating to skin.

Serious eye damage/eye irritation

Not classified based on available data. The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, eye damage classification is not required.

Respiratory or skin sensitization

Not classified based on available data. Contains sensitizer(s). May produce an allergic reaction.

Germ cell mutagenicity

Not classified based on available data.

Carcinogenicity

Not classified based on available data. During use in engines, contamination of oil with 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.

Reproductive toxicity

Not classified based on available data.

Target Organ Effects (STOT)

None known.

STOT - single exposure

Not classified based on available data.

STOT - repeated exposure

Not classified based on available data.

Aspiration hazard

Not classified based on available data.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Acute aquatic toxicity - Product Information

No information available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic 64742-65-0		LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	
Reaction products of 1-decene, hydrogenated 68649-12-7	EL50 (72h) > 1000 mg/l (WAF - Scenedesmus capricornutum - static - OECD 201)	LC50 (96h) > 1000 mg/l (WAF - Oncorhynchus mykiss - semi static)	EL50 (48h) > 1000 mg/l (WAF - Daphnia magna - static - OECD 202)	
10-ethyl-12-heptyl-11,13-dimethyltricosane; 8-ethyl-9,11-dimethyl-10-nonynonadecane 151006-60-9				EC50(16h) 10000 mg/L

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reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate 125643-61-0	EC50 (72h) > 3 mg/l (Scenedesmus sp. - OECD 201)	LC50 (96h) > 74 mg/l (Brachydanio rerio - semi static - OECD 203)	EC50(24h) > 100 mg/l (Daphnia magna - OECD 202)	
bis(nonylphenyl)amine 36878-20-3	EC50 (72h) > 100 mg/l (Desmodesmus subspicatus - OECD 201)	LC50 (96h) > 100 mg/l (Brachydanio rerio - OECD 203)	EC50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) 93819-94-4	EbC50 (96h) 2.1 mg/l Selenastrum capricornutum (OECD 201)	LC50 (96h) 4.5 mg/l Oncorhynchus mykiss (OECD 203)	EL50 (48h) 5.4 mg/l Daphnia magna (OECD 202)	
Molybdenum polysulphide long chain alkyl dithiocarbamate complex ^	EC50 (72h) 14 mg/l (Selenastrum capricornutum - OECD 201)	LL50 (96h) 94.8 mg/l (Oncorhynchus mykiss - OECD 203)	EL50 (48h) 50 mg/l (Daphnia magna - OECD 202)	

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 heavy paraffinic 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Distillates (petroleum), solvent-dewaxed heavy paraffinic 64742-65-0		NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Reaction products of 1-decene, hydrogenated 68649-12-7		NOELr(21d) 125 mg/l (Daphnia magna)		

Effects on terrestrial organisms No information available.**Persistence and degradability**

No information available

Bioaccumulative potential**Product Information** No information available.

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logPow No information available

Component Information

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic 64742-54-7	-
Reaction products of 1-decene, hydrogenated 68649-12-7	5
reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-trans-butyl-4-hydroxyphenyl)propionate 125643-61-0	9.2
bis(nonylphenyl)amine 36878-20-3	7.7
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate) 93819-94-4	0.9
Molybdenum polysulphide long chain alkyl dithiocarbamate complex ^	5.1

Mobility

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

Air Loss by evaporation is limited

Water The product is insoluble and floats on water

Other adverse effects

General Information No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment**

Waste from residues/unused products Should not be released into the environment. Do not empty into drains. Dispose of in accordance with all applicable national environmental laws and regulations. Where possible recycling is preferred to disposal or incineration. Other Regulatory Status: No Canadian federal standard; however, for general discharge guidance, federal installations limited to 15 mg/L for total oil and grease. Provincial criteria are likely and should be requested when notifying provincial authorities.

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

14. TRANSPORT INFORMATION

TDG Not regulated

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

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) (SOR/2015/17) and the Safety Data Sheet (SDS) contains all the information required by the HPR

International Inventories	All the substances contained in this product are listed or exempted from listing in the following inventories: Canada (DSL/NDSL) U.S.A. (TSCA)
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16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health Hazard 0	Flammability 1	Instability 0	Special hazards -
<u>HMIS</u>	Health Hazard 0	Flammability 1	Physical Hazard 0	Personal protection X

Revision Date: 2018-07-07
Revision Note Initial Release

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

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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

NTP = National Toxicology Program

Section 8

TWA - Time Weight Average

STEL - Short Term Exposure Limits

+	Sensitizer	*	Skin designation
C:	Carcinogen	R:	Toxic to reproduction
Ceiling:	Ceiling Limit Value		

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