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

1.1 Product identifier

Product name

: NTN-SNR LUB CHAIN OIL

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

Use of the Sub- stance/Mixture	:	Lubricating oil
Recommended restrictions on use	:	Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

	NTN-SNR ROULEMENTS 1, rue des Usines - BP 2017 74000 ANNECY France Tel : +33 (0)4 50 65 30 00 Fax : +33 (0)4 50 65 32 91
E-mail address of person : responsible for the SDS	fds@ntn-snr.fr Laboratory Service NTN-SNR Roulements
1.4 Emergency telephone number	Emergency Tel. (Office hours) : +33 (0)4 50 65 97 55 Emergency Tel. (France) ORFILA (INRS) : +33 (0)1 45 42 59 59 Emergency Tel. (EU) : 112 (Available 24 hours a day)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) Not a hazardous substance or mixture.



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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling

EUH210	Safety data sheet available on request.
EUH210 EUH208	Contains Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)]
	hydrogen dithiophosphate. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

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3.2 Mixtures

Chemical nature

ester oil Synthetic hydrocarbon oil

Components

Chemical name	CAS-No. EC-No. Index-No.	Classification	Concentration limits M-Factor Notes	Concentration (% w/w)
	Registration number			
Molybdenum trioxide, reaction products with bis[0,0-bis(2- ethylhexyl)] hydrogen	947-946-9	Skin Irrit.2; H315 Skin Sens.1B; H317 Aquatic Chronic4;		>= 0.25 - < 1
dithiophosphate	01-2120772600-59- XXXX	H413		

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

 Remove person to fresh air. If signs/symptoms continue, get medical attention.
 Keep patient warm and at rest.
 If breathing is irregular or stopped, administer artificial respiration.



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In case of skin contact	: Remove contaminated clothing. If irritation develops, get med ical attention.
	In case of contact, immediately flush skin with plenty of water
In case of eye contact	 Rinse immediately with plenty of water, also under the eyelide for at least 10 minutes. If eye irritation persists, consult a specialist.
If swallowed	: Move the victim to fresh air. Do NOT induce vomiting. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	: No information available.
Risks	: None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

: No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or car- bon dioxide.
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-	:	Fire may cause evolution of: Carbon oxides
		Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposi- tion products may be a hazard to health.
Further information	:	Standard procedure for chemical fires.



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/ national regulations (see section 13).

SECTION 6: Accidental release measures

• •		equipment and emergency procedures Evacuate personnel to safe areas.
		Use personal protective equipment.
		Refer to protective measures listed in sections 7 and 8.
6.2 Environmental precautions		
Environmental precautions	:	Try to prevent the material from entering drains or water courses. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.
6.3 Methods and material for cont	tair	nment and cleaning up
Methods for cleaning up	:	Contain spillage, and then collect with non-combustible ab- sorbent material, (e.g. sand, earth, diatomaceous earth, ver- miculite) and place in container for disposal according to local

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	
Advice on safe handling :	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap- plication area. Wash hands and face before breaks and immediately after handling the product.
Hygiene measures :	Wash face, hands and any exposed skin thoroughly after handling.
7.2 Conditions for safe storage, inc	luding any incompatibilities
Requirements for storage : areas and containers	Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.
7.3 Specific end use(s)	Specific instructions for bondling, not required
Specific use(s) :	Specific instructions for handling, not required.



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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
residual oils (petrole- um), hydrotreated	Workers	Inhalation	Long-term systemic effects	2.7 mg/m3
	Workers	Inhalation	Acute systemic ef- fects	5.6 mg/m3
	Workers	Skin contact	Long-term systemic effects	1 mg/kg
bis(4-(1,1,3,3- tetramethyl- butyl)phenyl)amine	Workers	Inhalation	Long-term systemic effects	49.3 mg/m3
	Workers	Dermal	Long-term systemic effects	14 mg/kg bw/day
Molybdenum trioxide, reaction products with bis[O,O-bis(2- ethylhexyl)] hydrogen dithiophosphate	Workers	Inhalation	Long-term systemic effects	4.93 mg/m3
	Workers	Dermal	Long-term systemic effects	1.4 mg/kg bw/day

8.2 Exposure controls

Engineering measures

none

Personal protective equipmen Eye protection	nt :	Safety glasses with side-shields
Break through time	:	Nitrile rubber > 10 min Class 1
Remarks :	:	For prolonged or repeated contact use protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. The selected protective gloves have to satisfy the specifica- tions of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Respiratory protection :	:	Not required; except in case of aerosol formation.
Filter type	:	Filter type A-P



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to the concentration and amount of the dangerous substance at the specific workplace. Choose body protection in relation to its type, to the concen-	Version 4.0	Revision Date : 06.02.2020			
cific work-place.	Protective measures	Choose body protection in relation to its type, to the concen- tration and amount of dangerous substances, and to the spe-			

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	green
Odour	:	characteristic
Odour Threshold	:	No data available
рН	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	>= 220 °C Method: ISO 2592, open cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	< 0.001 hPa (20 °C)
Relative vapour density	:	No data available
Density	:	0.95 g/cm3 (20 °C)
Bulk density	:	No data available
Solubility(ies) Water solubility	:	insoluble



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Solubility in other solvents	:	No data available
Partition coefficient: n- octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	320 mm2/s (40 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available
9.2 Other information		
Sublimation point	:	No data available
Self-ignition	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity				
No hazards to be specially mentioned.				
10.2 Chemical stability				
Stable under normal conditions.				
10.3 Possibility of hazardous reactions				
Hazardous reactions : No dangerous reaction known under conditions of normal use.				
10.4 Conditions to avoid Conditions to avoid No conditions to be specially mentioned.				
10.5 Incompatible materials Materials to avoid : No materials to be especially mentioned.				
10.6 Hazardous decomposition products				

No decomposition if stored and applied as directed.



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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: This information is not available.
Acute inhalation toxicity	:	Remarks: This information is not available.
Acute dermal toxicity	:	Remarks: This information is not available.

Skin corrosion/irritation

Product:

Components:

Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithio-phosphate:

Assessment	:	Irritating to skin.
Result	:	Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks

: This information is not available.

Components:

Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithio-phosphate:

Assessment	:	No eye irritation
Result	:	No eye irritation

Respiratory or skin sensitisation

Product:

Remarks

: This information is not available.

Components:

Molybdenum	trioxide, react	ion produc	cts with bi	is[O,O-bi	s(2-ethy	lhexyl)]	hydrogen	dithio-
phosphate:								
-								

Assessment	:	The product is a skin sensitiser, sub-category 1B.
Result	:	The product is a skin sensitiser, sub-category 1B.



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Germ cell mutagenicity		
Product:		
Genotoxicity in vitro	:	Remarks: No data available
Genotoxicity in vivo	:	Remarks: No data available
Carcinogenicity		
Product:		
Remarks	:	No data available
Reproductive toxicity		
Product:		
Effects on fertility	:	Remarks: No data available
Effects on foetal develop- ment	:	Remarks: No data available
Repeated dose toxicity		
Product:		
Remarks	:	This information is not available.
Aspiration toxicity		
Product:		
This information is not availal	ble.	
Further information		
Product:		
Remarks	:	Information given is based on data on the components and the toxicology of similar products.

SECTION 12: Ecological information

12.1 Toxicity

Product:		
Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available
Toxicity to algae/aquatic plants	:	Remarks: No data available

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Toxicity to microorganisms	:	Remarks: No data available
Components:		
Molybdenum trioxide, reaction phosphate:	on	products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithio-
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes

12.2 Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available
Physico-chemical removabil- ity	:	Remarks: No data available

Components:

Molybdenum trioxide, read phosphate:	tion	products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithio-
Biodegradability	:	Result: Not rapidly biodegradable Biodegradation: 11 % Exposure time: 28 d Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

<u>Product:</u>	
Bioaccumulation	 Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).



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Components:

Molybdenum trioxide, reaction products with bis[O,O-bis(2-ethylhexyl)] hydrogen dithio-phosphate:

Partition coefficient: n- : log Pow: > 4 octanol/water

12.4 Mobility in soil

Product:	

Mobility	:	Remarks: No data available
Distribution among environ- mental compartments	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment.

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

12.6 Other adverse effects

Product:

Additional ecological infor-	:	No information on ecology is available.
mation		

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The product should not be allowed to enter drains, water courses or the soil.
		Waste codes should be assigned by the user based on the application for which the product was used.
Contaminated packaging	:	Packaging that is not properly emptied must be disposed of as the unused product. Dispose of waste product or used containers according to local regulations.
		The following Waste Codes are only suggestions:



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SECTION 14: Transport information

14.1 UN number				
ADR	:	Not regulated as a dangerous good		
IMDG	:	Not regulated as a dangerous good		
ΙΑΤΑ	:	Not regulated as a dangerous good		
14.2 UN proper shipping name				
ADR	:	Not regulated as a dangerous good		
IMDG	:	Not regulated as a dangerous good		
ΙΑΤΑ	:	Not regulated as a dangerous good		
14.3 Transport hazard class(es)				
ADR	:	Not regulated as a dangerous good		
IMDG	:	Not regulated as a dangerous good		
ΙΑΤΑ	:	Not regulated as a dangerous good		
14.4 Packing group				
ADR	:	Not regulated as a dangerous good		
IMDG	:	Not regulated as a dangerous good		
IATA (Cargo)	:	Not regulated as a dangerous good		
IATA (Passenger)	:	Not regulated as a dangerous good		
14.5 Environmental hazards				
ADR	:	Not regulated as a dangerous good		
IMDG	:	Not regulated as a dangerous good		
IATA (Passenger)	:	Not regulated as a dangerous good		
IATA (Cargo)	:	Not regulated as a dangerous good		
14.6 Special precautions for user Not applicable				
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code				
Remarks	:	Not applicable for product as supplied.		

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High	:	This product does not contain sub-
Concern for Authorisation (Article 59).		stances of very high concern (Regu-
		lation (EC) No 1907/2006 (REACH),

Article 57).



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 REACH - List of substances subject to authorisation : Not applicable Regulation (EC) No 1005/2009 on substances that deplete the ozone layer Regulation (EC) No 850/2004 on persistent organic poletic : Not applicable Regulation (EC) No 649/2012 of the European Parliarment and the Council concerning the export and import of dangerous chemicals REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Not applicable 				
 (Annex XIV) Regulation (EC) No 1005/2009 on substances that deplete the ozone layer Regulation (EC) No 850/2004 on persistent organic pollutants Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) 				
plete the ozone layer Regulation (EC) No 850/2004 on persistent organic pol- lutants Not applicable Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals Not applicable REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Not applicable Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable Volatile organic compounds Eircetive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)			Not applicable	
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emissions (integrated pollution prevention and control)	major-accident hazards involving dangerous substances.			
		emissions (integrated pollu		

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15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements	
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H413	: May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - In-

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ternational Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development: OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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