LUB HIGH TEMP

Version 1.3 Revision Date 02.09.2016 Print Date 02.09.2016

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : LUB HIGH TEMP

Article-No. : 094061

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

Use of the Substance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

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Service Laboratoire NTN-SNR Roulements

1.4 Emergency telephone number

Tel. urgence (Heure bureau) : +33 (0)4 50 65 97 55
Emergency Tel.(France) ORFILA (INRS) : +33 (0)1 45 42 59 59

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3 — H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment — R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements	:	H412	Harmful to aquatic life with long lasting effects.
Precautionary statements	:	**Prevention:**	
		P273	Avoid release to the environment.

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mineral oil.
Synthetic hydrocarbon oil
polyurea

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
polyurea	1266545-95-2 / 01-0000017722-71-0001 / 01-0000017722-71-0002 / 01-0000017722-71-0000 /	R53	Aquatic Chronic 4; H413	>= 2.5 - < 10
O,O,O-triphenyl phosphorothioate	597-82-0 209-909-9	R53	Aquatic Chronic 4; H413	>= 1 - < 2.5
Phenol, isopropylated, phosphate (3:1)	68937-41-7 273-066-3 / 01-2119535109-41-XXXX	Xn; R48/22 Repr.Cat.3; R62-R63 N; R51/53	Repr. 2; H361 STOT RE 2; H373 Aquatic Chronic 1; H410	>= 1 - < 2.5
triphenyl phosphate	115-86-6 204-112-2	N; R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1

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.

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 unconscious place in recovery position and seek medical advice. Keep respiratory tract clear. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	:	Remove contaminated clothing. If irritation develops, get medical attention. In case of contact, immediately flush skin with plenty of water. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist.
If swallowed	:	Move the victim to fresh air. If unconscious place in recovery position and seek medical advice. Keep respiratory tract clear. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

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.

5. Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Fire may cause evolution of: Carbon oxides Nitrogen oxides (NOx) Oxides of phosphorus

Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.
Further information	:	Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Evacuate personnel to safe areas. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Avoid breathing dust. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions	:	Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not ingest. Do not repack. These safety instructions also apply to empty packaging which may still contain product residues. Keep container closed when not in use.

7.2 Conditions for safe storage, including 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)

: Consult the technical guidelines for the use of this substance/mixture.

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value type	Control parameters	Update	Basis
triphenyl phosphate	115-86-6	TWA	3 mg/m3	2005-04-06	GB EH40
triphenyl phosphate	115-86-6	STEL	6 mg/m3	2005-04-06	GB EH40

DNEL

Phenol, isopropylated, phosphate (3:1) : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 0.145 mg/m3

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0.416 mg/kg bw/day

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Acute local effects
Value: 16 mg/cm2

triphenyl phosphate : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 5.2 mg/m3

End Use: Workers
Exposure routes: Skin contact

Potential health effects: Long-term systemic effects
Value: 5.55 mg/kg bw/day

PNEC

Phenol, isopropylated, phosphate (3:1)	:	Fresh water Value: 0.29 µg/l Marine water Value: 0.029 µg/l Intermittent use/release Value: 0.29 µg/l Fresh water sediment Value: > 112 mg/kg Marine sediment Value: > 0.0168 mg/kg Soil Value: > 0.1 mg/kg Microbiological Activity in Sewage Treatment Systems Value: 100 mg/kg Oral Value: 0.83 mg/kg
triphenyl phosphate	:	Fresh water Value: 0.004 mg/l Marine water Value: 0.0004 mg/l Intermittent use/release Value: 0.003 mg/l Sewage treatment plant Value: 5 mg/l Fresh water sediment Value: 1.103 mg/kg Marine sediment Value: 0.11 mg/kg Soil Value: 0.218 mg/kg Oral Value: 16.667 mg/kg

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Respiratory protection	:	Not required; except in case of aerosol formation. Filter type P
Hand protection	:	For prolonged or repeated contact use protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. 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. In case of contact through splashing:
	:	Nitrile rubber Protective index Class 1
Eye protection	:	Tightly fitting safety goggles
Hygiene measures	:	Wash face, hands and any exposed skin thoroughly after handling.
Protective measures	:	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Environmental exposure controls

General advice	:	Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	paste
Colour	:	brown
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available

Flammability (solid, gas)	:	Combustible Solids
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Vapour pressure	:	< 0.001 hPa, 20 °C
Relative vapour density	:	No data available
Density	:	0.90 g/cm3, 20 °C
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Ignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available

9.2 Other information

Sublimation point	:	No data available
Bulk density	:	No data available

10. Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

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

Hazardous decomposition products	:	No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

Product

Acute inhalation toxicity	:	This information is not available.
Skin corrosion/irritation	:	This information is not available.
Serious eye damage/eye irritation	:	This information is not available.
Respiratory or skin sensitisation	:	This information is not available.
Germ cell mutagenicity		
Genotoxicity in vitro	:	No data available
Genotoxicity in vivo	:	No data available
Carcinogenicity	:	No data available
Reproductive toxicity	:	No data available
Teratogenicity	:	No data available
Repeated dose toxicity	:	This information is not available.
Aspiration toxicity	:	This information is not available.
Further information	:	Information given is based on data on the components and the toxicology of similar products.

Components:

polyurea :

Acute oral toxicity	:	LD50: > 2,000 mg/kg, Rat
Acute dermal toxicity	:	LD50: > 2,000 mg/kg, Rat

O,O,O-triphenyl phosphorothioate :

Acute oral toxicity	:	LD50: > 2,000 mg/kg, Rat
Skin corrosion/irritation	:	Rabbit, Result: No skin irritation, Classification: No skin irritation
Serious eye damage/eye irritation	:	Rabbit, Result: No eye irritation, Classification: No eye irritation
Respiratory or skin sensitisation	:	Classification: Does not cause skin sensitisation.
Aspiration toxicity	:	No aspiration toxicity classification

Phenol, isopropylated, phosphate (3:1) :

Acute oral toxicity	:	LD50: > 20,000 mg/kg, Rat
Acute inhalation toxicity	:	LC50: > 200 mg/l, 1 h, Rat, vapour
Acute dermal toxicity	:	LD50: > 10,000 mg/kg, Rabbit

Skin corrosion/irritation	:	Rabbit, Result: No skin irritation, Classification: No skin irritation
Serious eye damage/eye irritation	:	Rabbit, Result: No eye irritation, Classification: No eye irritation
Respiratory or skin sensitisation	:	Mouse, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation.
STOT - repeated exposure	:	Exposure routes: Ingestion Target Organs: Adrenal gland, Testes Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Aspiration toxicity	:	No aspiration toxicity classification

triphenyl phosphate :

Acute oral toxicity	:	LD50: > 20,000 mg/kg, Rat, OECD Test Guideline 401
Acute inhalation toxicity	:	LC50: > 200 mg/l, 1 h, Rat, dust/mist, OECD Test Guideline 403, The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50: > 10,000 mg/kg, Rabbit, OECD Test Guideline 402
Skin corrosion/irritation	:	Rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404, GLP: yes
Serious eye damage/eye irritation	:	Rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405, GLP: yes
Respiratory or skin sensitisation	:	Guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes
Further information	:	Information given is based on data on the components and the toxicology of similar products.

12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae	:	No data available
Toxicity to bacteria	:	No data available

Components:

polyurea :

Toxicity to fish	:	LC50: > 100 mg/l, 96 h, Danio rerio (zebra fish), static test, OECD Test Guideline 203, GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50: > 100 mg/l, 48 h, Daphnia magna (Water flea), Immobilization, OECD Test Guideline 202, GLP: yes

O,O,O-triphenyl phosphorothioate :

Toxicity to fish	:	LC50: > 100 mg/l, 96 h, Brachydanio rerio (zebrafish), OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50: > 100 mg/l, 48 h, Daphnia magna (Water flea), Immobilization, OECD 202 T1
Toxicity to algae	:	EC50: > 100 mg/l, 72 h, Desmodesmus subspicatus (green algae), OECD Test Guideline 201
Toxicity to bacteria	:	EC50: > 100 mg/l, 3 h, activated sludge, OECD 209

Ecotoxicology Assessment

Chronic aquatic toxicity	:	May cause long lasting harmful effects to aquatic life.

Phenol, isopropylated, phosphate (3:1) :

Toxicity to fish	:	LC50: 1.6 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), static test, Information given is based on tests on the mixture itself.
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 2.44 mg/l, 48 h, Daphnia magna (Water flea), semi-static test, Information given is based on tests on the mixture itself.
Toxicity to algae	:	EC50: > 2.5 mg/l, 96 h, Pseudokirchneriella subcapitata (green algae), static test, OECD Test Guideline 201, GLP: yes, Information given is based on tests on the mixture itself.
M-Factor	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC: 0.0031 mg/l, 33 d, Pimephales promelas (fathead minnow), OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0.0415 mg/l, 21 d, Daphnia magna (Water flea), OECD Test Guideline 211

triphenyl phosphate :

Toxicity to fish	:	LC50: 0.4 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout)
	:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 1.0 mg/l, 48 h, Daphnia magna (Water flea), static test
Toxicity to algae	:	EC50: 2 mg/l, 96 h, Pseudokirchneriella subcapitata (green algae)
M-Factor	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC: <= 0.0014 mg/l, 90 d, Oncorhynchus mykiss (rainbow trout)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product:

Biodegradability : No data available

Physico-chemical removability : No data available

Components:

polyurea :

Biodegradability : Result: Not rapidly biodegradable

O,O,O-triphenyl phosphorothioate :

Biodegradability : Result: Not rapidly biodegradable, OECD

Phenol, isopropylated, phosphate (3:1) :

Biodegradability : Result: Readily biodegradable,
Taking into consideration the properties of several components, the product is estimated to be biodegradable according to OECD classification.

triphenyl phosphate :

Biodegradability : aerobic, 83 - 94 %, Result: Readily biodegradable, Exposure time: 28 d, activated sludge, OECD 301 C

12.3 Bioaccumulative potential

Product:

Bioaccumulation : 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).

Components:

O,O,O-triphenyl phosphorothioate :

Bioaccumulation : Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

triphenyl phosphate :

Bioaccumulation : Oryzias latipes (Orange-red killifish), Exposure time: 18 d, Concentration: 0.01 mg/l, Bioconcentration factor (BCF): 144

12.4 Mobility in soil

Product:

Mobility : No data available

Distribution among environmental compartments : 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.

Components:

O,O,O-triphenyl phosphorothioate :

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Phenol, isopropylated, phosphate (3:1) :

Assessment : Non-classified PBT substance, Non-classified vPvB substance

triphenyl phosphate :

Assessment : Non-classified PBT substance, Non-classified vPvB substance

12.6 Other adverse effects

Product:

Additional ecological information : Harmful to aquatic life with long lasting effects.

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 : Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

14.1 UN number

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.2 Proper shipping name

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA

Not dangerous goods

14.3 Transport hazard class

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.4 Packing group

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.5 Environmental hazards

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.6 Special precautions for user

No special precautions required.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not applicable for product as supplied.

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 Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Major Accident Hazard Legislation : 96/82/EC Update:
Not applicable

15.2 Chemical Safety Assessment

This information is not available.

16. Other information

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

R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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.
R53	May cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R63	Possible risk of harm to the unborn child.

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

H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.
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.

Further information