

ANDEROL 2100 HTCL

Version 1.5

Revision Date 26.07.2017

Print Date 08.09.2017

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

1.1 Product identifier

Trade name : ANDEROL 2100 HTCL

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

Use of the Substance/Mixture : Lubricant, Raw material for industry
Lubricant

Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company: Manufacturer
Anderol Specialty Lubricants
Groot Egtenrayseweg 23
5928 PA Venlo
Netherlands

Telephone : +31-77 396 0340

Supplier
LANXESS Solutions UK Ltd.
Tenax Road, Trafford Park
Manchester
United Kingdom
M17 1WT

Customer Service: +44 161 875 3800
Prepared by Product Safety Department
(US) +1 866-430-2775

Further information for the safety data sheet :
msdsrequest@chemtura.com

1.4 Emergency telephone number

Emergency telephone number: +44 (0) 1235 239 670 (NCEC)

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

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SECTION 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.

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.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling:

EUH208 Contains: N-1-naphthylaniline. 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

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
O,O,O-triphenyl phosphorothioate	597-82-0 209-909-9 01-2119979545-21-xxxx	Aquatic Chronic4; H413	>= 1 - < 10
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1 270-128-1 01-2119491299-23-0002	Aquatic Chronic3; H412	>= 1 - < 10
N-1-naphthylaniline	90-30-2 201-983-0 01-2119488704-27-xxxx	Acute Tox.4; H302 Skin Sens.1; H317 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0.25 - < 1
Amines, C11-14-branched	80939-62-4	Skin Irrit.2; H315	>= 0.1 - < 1

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alkyl, monohexyl and dihexyl phosphates	279-632-6 01-2119976322-36-xxxx	Eye Irrit.2; H319 Aquatic Chronic2; H411	
Distillates (petroleum), hydrotreated middle	64742-46-7 265-148-2	Asp. Tox.1; H304	$\geq 0.1 - < 1$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | | |
|-------------------------|---|--|
| If inhaled | : | If inhaled
Move to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
In case of bluish discoloration (lips, ear lobes, fingernails), give oxygen as quickly as possible.
If symptoms persist, call a physician. |
| In case of skin contact | : | In case of skin contact
Wash off with soap and water.
Remove contaminated clothing and shoes.
Wash contaminated clothing before re-use.
Get medical attention if irritation develops and persists. |
| In case of eye contact | : | In case of eye contact
Rinse thoroughly with plenty of water, also under the eyelids.
If eye irritation persists, consult a specialist. |
| If swallowed | : | If swallowed, DO NOT induce vomiting.
Consult a physician if necessary. |

4.2 Most important symptoms and effects, both acute and delayed

- | | | |
|----------|---|---------------------------|
| Symptoms | : | No information available. |
|----------|---|---------------------------|

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 | : | Carbon dioxide (CO ₂)
Dry powder
Foam
Alcohol-resistant foam |
|------------------------------|---|---|

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Water mist

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Burning produces noxious and toxic fumes.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Further information : In the event of fire, cool tanks with water spray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Forms slippery/greasy layers with water.

6.2 Environmental precautions

Environmental precautions : Should not be released into the environment.
Do not contaminate water.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Keep container closed when not in use.
Do not use pressure to empty drums.
Ensure all equipment is electrically grounded before beginning transfer operations.

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Hygiene measures : Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Do not breathe dust or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage : Keep container tightly closed in a dry and well-ventilated areas and containers place.

Other data : Stable under recommended storage conditions.

7.3 Specific end use(s)

Specific use(s) : Raw material for industry

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:

Component	End Use	Exposure routes	Potential health effects	Value:
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Workers	Dermal	Long-term systemic effects	0.62 mg/kg
	Workers	Inhalation	Long-term systemic effects, Systemic effects	4.37 mg/m3
	General exposures	Skin contact	Chronic effects, Systemic effects	0.31 mg/kg
	General exposures	Inhalation	Chronic effects, Systemic effects	1.09 mg/m3
	General exposures	Ingestion	Chronic effects, Systemic effects	0.31 mg/kg
N-1-naphthylaniline	Workers	Dermal	Long-term systemic effects	0.12 mg/kg
	Workers	Inhalation	Long-term systemic effects	0.41 mg/m3
	General exposures	Ingestion	Long-term systemic effects	0.06 mg/kg
	General exposures	Dermal	Long-term systemic effects	0.06 mg/kg
	General exposures	Inhalation	Long-term systemic effects	0.1 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Component	Environmental Compartment	Value
Benzenamine, N-phenyl-, reaction	Fresh water	Value: 0.051 mg/l

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products with 2,4,4-trimethylpentene		
	Marine water	Value: 0.0051 mg/l
	Fresh water sediment	Value: 9320 mg/kg
	Marine sediment	Value: 932 mg/kg
	Soil	Value: 1860 mg/kg
	STP	Value: 1 mg/l
N-1-naphthylaniline	Fresh water	Value: 0.0002 mg/l
	Marine water	Value: 0.00002 mg/l
	Fresh water sediment	Value: 0.0344 mg/kg
	Marine sediment	Value: 0.00344 mg/kg
	Soil	Value: 0.0068 mg/kg
	STP	Value: 100 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields
Tightly fitting safety goggles

Hand protection

: Neoprene gloves

Skin and body protection : Impervious clothing

Respiratory protection : Breathing apparatus needed only when aerosol or mist is formed.
In the case of vapour formation use a respirator with an approved filter.

Environmental exposure controls

General advice : Should not be released into the environment., Do not contaminate water., Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

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Colour	: clear, yellow
Odour	: characteristic
Odour Threshold	: No data available
pH	: Not applicable
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: 262 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: 0.915 g/cm ³ (15 °C)
Solubility(ies)	
Water solubility	: slightly soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Viscosity	
Viscosity, dynamic	: 12.0 - 100.0 mPa.s (40 - 100 °C) Method: ASTM D 445
Viscosity, kinematic	: 94.9 mm ² /s (40 °C)

9.2 Other information

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Oxidizing potential : No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Conditions to avoid : Heat

10.5 Incompatible materials

Materials to avoid : Strong acids and strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

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

N-1-naphthylaniline:

Acute oral toxicity : LD50 (Rat): 1,625 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species: Rabbit
Method: OECD Test Guideline 404

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Result: No skin irritation

N-1-naphthylaniline:

Species: Rabbit

Method: Draize Test

Result: No skin irritation

Serious eye damage/eye irritation

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species: Rabbit

Method: OECD Test Guideline 405

Result: No eye irritation

N-1-naphthylaniline:

Species: Rabbit

Method: OECD Test Guideline 405

Result: No eye irritation

Respiratory or skin sensitisation

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

N-1-naphthylaniline:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: May cause sensitisation by skin contact.

Result: May cause sensitisation by skin contact.

Test Type: Patch Test

Species: Human

Assessment: May cause sensitisation by skin contact.

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Germ cell mutagenicity

Assessment : Not mutagenic in Ames Test

N-1-naphthylaniline:

Genotoxicity in vitro

: Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

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: Test Type: Chinese Hamster Ovary (CHO)
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo

: Test Type: in vivo assay
Test species: Mouse (male)
Result: negative

Germ cell mutagenicity
Assessment

: Animal testing did not show any mutagenic effects., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

N-1-naphthylaniline:

Carcinogenicity
Assessment

: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Components:

O,O,O-triphenyl phosphorothioate:

Exposure routes: Oral

Target Organs: Endocrine system

Assessment: May cause damage to organs through prolonged or repeated exposure.

N-1-naphthylaniline:

Exposure routes: Oral

Target Organs: Liver, Kidney

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: There is no data available for this product.

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SECTION 12: Ecological information

12.1 Toxicity

Product:

Further information

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 95.464 %

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

- Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 71 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae : EbC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

N-1-naphthylaniline:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l
Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.68 mg/l
Exposure time: 48 h
Test Type: semi-static test
Analytical monitoring: yes
- Toxicity to bacteria : EC50 (Protozoa): 2 mg/l
Exposure time: 48 h
- EC50 (Bacteria): > 10,000 mg/l
Exposure time: 3 h
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: yes

12.2 Persistence and degradability

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

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Biodegradability : Result: According to the results of tests of biodegradability this product is not readily biodegradable.
Method: CO2 Evolution Test

N-1-naphthylaniline:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Concentration: 100 mg/l
Result: According to the results of tests of biodegradability this product is not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301
GLP: yes

12.3 Bioaccumulative potential

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Partition coefficient: n-octanol/water : log Pow: > 7

N-1-naphthylaniline:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 56 d
Temperature: 25 °C
Concentration: 0.1 mg/l
Bioconcentration factor (BCF): 427 - 2,730

Partition coefficient: n-octanol/water : log Pow: 4.28

12.4 Mobility in soil

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 information : Remarks: There is no data available for this product.

Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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Harmful to aquatic life with long lasting effects.

Components:

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Additional ecological information : Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do not allow material to contaminate ground water system.
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of in accordance with the European Directives on waste and hazardous waste.
Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

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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).

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants

Not applicable

Major Accident Hazard Legislation

Seveso Directive

Directive 96/82/EC does not apply

Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.

The components of this product are reported in the following inventories:

DSL	: This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
AICS	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: Not in compliance with the inventory
US.TSCA	: On TSCA Inventory

15.2 Chemical safety assessment

No information available.

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SECTION 16: Other information

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

H412 Harmful to aquatic life with long lasting effects.

Emergency Phone Number

<u>Europe:</u>	All European Countries	+44 (0) 1235 239 670 (NCEC)
<u>Asia Pacific:</u>	East / South East Asia – Regional Number	+65 3158 1074 (NCEC)
	Australia	+61 2 8014 4558
	New Zealand	+64 9929 1483 (NCEC)
	China	+86 512 8090 3042 (NCEC)
	Taiwan	+886 2 8793 3212 (NCEC)
	Japan	+81 3 4578 9341 (NCEC)
	Indonesia	007 803 011 0293 (NCEC)
	Malaysia	+60 3 6207 4347 (NCEC)
	Thailand	001 800 120 666 751 (NCEC)
	Korea	+65 3158 1285 (NCEC)
	Vietnam	+84 8 4458 2388 (NCEC)
	India	+65 3158 1198 (NCEC)
	Pakistan	+65 3158 1329 (NCEC)
	Philippines	+65 3158 1203 (NCEC)
	Sri Lanka	+65 3158 1195 (NCEC)
	Bangladesh	+65 3158 1200 (NCEC)
<u>Middle East / Africa:</u>		+44 (0) 1235 239 671 (NCEC)
<u>North America</u>	United States of America (USA)	(800) 424-9300 (CHEMTREC)
	Canada	(800) 424-9300 (CHEMTREC)
<u>Latin America</u>	Mexico	+52 555 004 8763 (NCEC)
	Brazil	+55 11 3197 5891 (NCEC)
	Chile	+56 2 2582 9336 (NCEC)
	All other countries	+44 (0) 1235 239 670 (NCEC)

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material design-

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nated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.