# ANDEROL 500

Version 2.7 | Revision Date 31.08.2017 | Print Date 12.09.2017

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

### 1.1 Product identifier

Trade name : ANDEROL 500

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

Use of the Substance/Mixture : Lubricant

Recommended restrictions on use : Restricted to professional users.

### 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.

## 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.<br>EC-No.<br>Registration number | Classification (REGULATION (EC) No 1272/2008) | Concentration (%) |
|---|---|---|---|
| N-1-naphthylaniline | 90-30-2<br>201-983-0<br>01-2119488704-27-xxxx | Acute Tox.4; H302<br>Skin Sens.1; H317<br>STOT RE2; H373<br>Aquatic Acute1; H400<br>Aquatic Chronic1; H410 | >= 0.25 - < 1 |
| diphenylamine | 122-39-4<br>204-539-4<br>01-2119488966-13-0004 | Acute Tox.3; H301<br>Acute Tox.3; H331<br>Acute Tox.3; H311<br>Eye Irrit.2; H319<br>STOT RE2; H373<br>Aquatic Acute1; H400<br>Aquatic Chronic1; H410 | >= 0.1 - < 0.25 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : For specialist advice physicians should contact the Poisons Information Service.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

### 5.3 Advice for firefighters

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

| | | |
|---|---|---|
| Further information | : | Collect contaminated fire extinguishing water separately. This must not be discharged into drains.<br>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

| | | |
|---|---|---|
| Personal precautions | : | Use personal protective equipment. |

### 6.2 Environmental precautions

| | | |
|---|---|---|
| Environmental precautions | : | If the product contaminates rivers and lakes or drains inform respective authorities. |

### 6.3 Methods and material for containment and cleaning up

| | | |
|---|---|---|
| Methods for cleaning up | : | Wipe up with absorbent material (e.g. cloth, fleece).<br>Keep in suitable, closed containers for disposal. |

### 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 | : | For personal protection see section 8.<br>Dispose of rinse water in accordance with local and national regulations. |
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |
| Hygiene measures | : | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |

### 7.2 Conditions for safe storage, including any incompatibilities

| | | |
|---|---|---|
| Requirements for storage areas and containers | : | Keep container tightly closed in a dry and well-ventilated place. |
| Other data | : | No decomposition if stored and applied as directed. |

### 7.3 Specific end use(s)

| | | |
|---|---|---|
| Specific use(s) | : | Raw material for industry |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure Limits**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| diphenylamine | 122-39-4 | TWA | 10 mg/m3 | GB EH40 |
| diphenylamine | 122-39-4 | STEL | 20 mg/m3 | GB EH40 |

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

| Component | End Use | Exposure routes | Potential health effects | Value: |
|---|---|---|---|---|
| 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 |
|---|---|---|
| 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

**Engineering measures**

Ensure that eyewash stations and safety showers are close to the workstation location.
Effective exhaust ventilation system

**Personal protective equipment**

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection

: Polyvinyl alcohol or nitrile- butyl-rubber gloves
The selected protective gloves have to satisfy the

specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Before removing gloves clean them with soap and water.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Not required; except in case of aerosol formation.

**Environmental exposure controls**

General advice : If the product contaminates rivers and lakes or drains inform respective authorities.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Appearance | : | liquid |
| Colour | : | yellow |
| Odour | : | No data available |
| Odour Threshold | : | No data available |
| pour point | : | -36 °C |
| | : | No data available |
| Flash point | : | 232 °C<br>Method: ASTM D92 |
| 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 vapour density | : | No data available |
| Density | : | 0.953 g/cm3 (15 °C)<br>Method: ASTM D 1298 |

| | | |
|---|---|---|
| Solubility(ies) | | |
| Water solubility | : | No data available |
| Solubility in other solvents | : | No data available |
| Partition coefficient: n-octanol/water | : | No data available |
| Auto-ignition temperature | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | 97.8 mm2/s (40 °C)<br>Method: ASTM D 445 |
| | | 10.0 mm2/s (100 °C)<br>Method: ASTM D 445 |

**9.2 Other information**

| | | |
|---|---|---|
| Self-Accelerating decomposition temperature (SADT) | : | Method: No information available. |
| Oxidizing potential | : | No information available. |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

Stable under recommended storage conditions.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

| | | |
|---|---|---|
| Hazardous reactions | : | Stable under recommended storage conditions.<br>No decomposition if used as directed. |

**10.4 Conditions to avoid**

| | | |
|---|---|---|
| Conditions to avoid | : | Exposure to moisture<br>Contamination |

**10.5 Incompatible materials**

Materials to avoid : Strong acids and oxidizing agents

**10.6 Hazardous decomposition products**

Hazardous decomposition products : Nitrogen oxides (NOx)
Carbon oxides

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity**

**Product:**

Acute oral toxicity : Remarks: Not classified due to lack of data.

Acute inhalation toxicity : Acute toxicity estimate : 183.33 mg/l
Test atmosphere: vapour
Method: Calculation method

Remarks: Not classified due to lack of data.

Acute dermal toxicity : Remarks: Not classified due to lack of data.

**Components:**

**N-1-naphthylaniline:**

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

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

**diphenylamine:**

Acute oral toxicity : Acute toxicity estimate : 100 mg/kg
Method: Converted acute toxicity point estimate

LD50 (Rat): 2,720 mg/kg

Acute dermal toxicity : Acute toxicity estimate : 300 mg/kg
Method: Converted acute toxicity point estimate

LD50 (Rabbit): > 2,000 mg/kg

**Skin corrosion/irritation**

**Product:**

Remarks: According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

**Components:**

**N-1-naphthylaniline:**
Species: Rabbit
Method: Draize Test
Result: No skin irritation

**diphenylamine:**
Species: Rabbit
Result: Mild skin irritation

**Serious eye damage/eye irritation**

**Product:**

Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

**Components:**

**N-1-naphthylaniline:**
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

**diphenylamine:**
Species: Rabbit
Result: Eye irritation

**Respiratory or skin sensitisation**

**Components:**

**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.

**diphenylamine:**
Species: Guinea pig
Result: Does not cause skin sensitisation.

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity
Assessment : Not classified due to lack of data.

**Components:**

**N-1-naphthylaniline:**

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

: 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.

**diphenylamine:**

Germ cell mutagenicity
Assessment : Animal testing did not show any mutagenic effects.

**Carcinogenicity**

**Product:**

Carcinogenicity
Assessment : Not classified due to lack of data.

**Components:**

**N-1-naphthylaniline:**

Carcinogenicity
Assessment : Animal testing did not show any carcinogenic effects.

**diphenylamine:**

Carcinogenicity
Assessment : Not classifiable as a human carcinogen.

**Reproductive toxicity**

**Product:**

Reproductive toxicity
Assessment : Not classified due to lack of data.

**Components:**

**diphenylamine:**

Reproductive toxicity
Assessment : No toxicity to reproduction
No toxicity to reproduction

**STOT - single exposure**

**Product:**

Assessment: Not classified due to lack of data.

**STOT - repeated exposure**

**Product:**

Assessment: Not classified due to lack of data.

**Components:**

**N-1-naphthylaniline:**
Exposure routes: Oral
Target Organs: Liver, Kidney
Assessment: May cause damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**

**diphenylamine:**
Species: Mouse, male
NOAEL: 1.7 mg/kg
LOAEL: 93.8 mg/kg
Application Route: Oral
Exposure time: 90 d
Target Organs: Blood, Liver, Kidney

Species: Mouse, female
NOAEL: 2.1 mg/kg
LOAEL: 107 mg/kg
Application Route: Oral
Exposure time: 90 d
Target Organs: Blood, Liver, Kidney

**Aspiration toxicity**

**Product:**

No aspiration toxicity classification

**Further information**

**Product:**

Remarks: No data available

## 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

Further information
The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 82.73 %

**Components:**

**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

**diphenylamine:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.2 mg/l
Exposure time: 48 h

### 12.2 Persistence and degradability

**Product:**

Biodegradability : Result: No data available

**Components:**

**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

**Product:**

Bioaccumulation : Remarks: No data available

**Components:**

**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

**Product:**

Mobility : 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 information : Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

## 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

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
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

**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 | : | All components of this product are on the Canadian DSL |
| AICS | : | On the inventory, or in compliance with the inventory |
| NZIoC | : | On the inventory, or 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 | : | On the inventory, or in compliance with the inventory |
| IECSC | : | On the inventory, or in compliance with the inventory |
| TCSI | : | On the inventory, or in compliance with the inventory |
| US.TSCA | : | On TSCA Inventory |

### 15.2 Chemical safety assessment

No information available.

## 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

| | | |
|---|---|---|
| Europe: | All European Countries | +44 (0) 1235 239 670 (NCEC) |
| | | |
| Asia Pacific: | 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) |
| | | |
| Middle East / Africa: | | +44 (0) 1235 239 671 (NCEC) |
| | | |
| North America | United States of America (USA) | (800) 424-9300 (CHEMTREC) |
| | Canada | (800) 424-9300 (CHEMTREC) |
| | | |
| Latin America | 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 designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.