

SAFETY DATA SHEET



ANDEROL 500

Version: 1.6

Revision Date: 10/12/2018

Print Date: 08/06/2020

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ANDEROL 500
SYNTHETIC COMPRESSOR OIL - NSF
CATEGORY CODE: H2/REGISTRATION NO. 123762

Product Use Description: Lubricant

Synonyms: Synthetic Lubricant Formulation

Company: Manufacturer
Anderol Specialty Lubricants, a division of Lanxess Solutions US Inc.
215 Merry Lane
East Hanover, NJ
07936
United States of America (USA)

Telephone: +1 203-573-4596, Toll Free: +1 888-263-3765

Email: msdsrequest@chemtura.com
Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300
:
: US : 800-292-5898 (Technical inquiries)

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

Prepared by Product Safety Department
(US) +1 866-430-2775

MSDSRequest@lanxess.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

SECTION 2. HAZARDS IDENTIFICATION

| | |
|--------|--------|
| Form | liquid |
| Colour | amber |
| Odour | mild |

GHS Classification

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 3

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GHS label elements

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Other hazards : None

Other Hazardous Information :
Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

| Chemical name | CAS-No. | Concentration (%) |
|---|----------|----------------------|
| 2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol | 118-82-1 | $\geq 1 - < 2.5 \%$ |
| N-1-naphthylaniline | 90-30-2 | $\geq 0.25 - < 1 \%$ |

SECTION 4. 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.

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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.
- Most important symptoms and effects, both acute and delayed : None known.
- Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Dry sand
Alcohol-resistant foam
Water mist
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Burning produces noxious and toxic fumes.
Do not allow run-off from fire fighting to enter drains or water courses.
- Specific extinguishing methods : In the event of fire, cool tanks with water spray.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
- Environmental precautions : Should not be released into the environment.
Do not contaminate water.

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Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and 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).

SECTION 7. HANDLING AND STORAGE

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.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

Materials to avoid : Strong acids and strong bases, Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|---------------------|---------|------------------|---------------------------|-------|
| N-1-naphthylaniline | 90-30-2 | TWA | 10 ml/m3 | ACGIH |

Personal protective equipment

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.

Hand protection
Remarks : Neoprene gloves

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

Skin and body protection : Impervious clothing

Hygiene measures : Avoid contact with skin, eyes and clothing.
Provide adequate ventilation.

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Do not breathe dust or spray mist.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|--|---|-----------------------------------|
| Appearance | : | liquid |
| Colour | : | amber |
| Odour | : | mild |
| Odour Threshold | : | No data available |
| pH | : | No data available |
| Melting point/range | : | Not applicable |
| Boiling point/boiling range | : | No data available |
| Flash point | : | 480 °F / 249 °C |
| | | Method: open cup |
| Evaporation rate | : | No data available |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapour pressure | : | No data available |
| Relative vapour density | : | No data available |
| Relative density | : | 0.96 |
| 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 |
| Decomposition temperature | : | No data available |
| Self-Accelerating decomposition temperature | : | Method: No information available. |

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(SADT)

Viscosity

Viscosity, kinematic : 104.3 mm²/s (104 °F / 40 °C)
Method: ASTM D 445

Oxidizing potential : No information available.

Molecular weight : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Contamination
Heat, flames and sparks.

Incompatible materials : Strong acids and strong bases
Strong oxidizing agents

Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NO_x)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

N-1-naphthylaniline:

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

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

Skin corrosion/irritation

Product:

Remarks: Not classified due to lack of data.

Components:

N-1-naphthylaniline:

Species: Rabbit

Method: Draize Test

Result: No skin irritation

Serious eye damage/eye irritation

Components:

N-1-naphthylaniline:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

Respiratory or skin sensitisation

Components:

N-1-naphthylaniline:

Test Type: Maximisation Test

Species: Guinea pig

Result: Probability or evidence of low to moderate skin sensitisation rate in humans

Test Type: Patch Test

Species: Humans

Result: Probability or evidence of low to moderate skin sensitisation rate in humans

Test Type: Maximisation Test

Species: Guinea pig

Result: Probability or evidence of low to moderate skin sensitisation rate in humans

Germ cell mutagenicity

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

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Genotoxicity in vivo : Test Type: in vivo assay
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.

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT - repeated exposure

Components:

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.

SECTION 12. ECOLOGICAL INFORMATION

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Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Toxicity to daphnia and other :
aquatic invertebrates Remarks: No data available

Toxicity to algae :
Remarks: No data available

Components:

2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other : LC50 (Mysid shrimp): > 1,000 mg/l
aquatic invertebrates Exposure time: 96 h
Test Type: static test

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 : EC50 (Daphnia magna (Water flea)): 0.68 mg/l
aquatic invertebrates Exposure time: 48 h
Test Type: semi-static test
Analytical monitoring: yes

M-Factor (Acute aquatic : 1
toxicity)

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 0.02 mg/l
aquatic invertebrates Exposure time: 21 d
(Chronic toxicity) Analytical monitoring: yes

M-Factor (Chronic aquatic : 1
toxicity)

Toxicity to microorganisms : EC50 (Protozoa): 2 mg/l
Exposure time: 48 h

EC50 (Bacteria): > 10,000 mg/l
Exposure time: 3 h

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Persistence and degradability

Components:

N-1-naphthylaniline:

Biodegradability : 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

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

2,2',6,6'-tetra-tert-butyl-4,4'-methylenediphenol:

Partition coefficient: n-octanol/water : log Pow: 6.24 (68 °F / 20 °C)
GLP: yes

N-1-naphthylaniline:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 427 - 2,730
Exposure time: 56 d
Temperature: 77 °F / 25 °C
Concentration: 0.1 mg/l

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

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

Product:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I
Substances

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Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There is no data available for this product.

The product itself has not been tested.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.

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

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

National Regulations

49 CFR

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

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EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-----------------|----------|--------------------|-----------------------------|
| 1-naphthylamine | 134-32-7 | 100 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|------------|---------|--------------------|-----------------------------|
| aniline | 62-53-3 | 5000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

n-Butene, homopolymer %

California Prop. 65

WARNING: This product can expose you to chemicals including aniline, 1-naphthylamine, 2-naphthylamine, which is/are known to the State of California to cause cancer, and 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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.

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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 | 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 | 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 |

SECTION 16. OTHER INFORMATION

Further information

Other Emergency Phone Number

| | | |
|-----------------------|---------------------|----------------------|
| <u>Latin America:</u> | Brazil | +55 113 711 9144 |
| | All other countries | +44 (0) 1235 239 670 |
| <u>Mexico:</u> | | +52 555 004 8763 |

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.