



SAFETY DATA SHEET

ANDEROL 486

Version: 1.3

Revision Date: 12/08/2017

Print Date: 05/22/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: ANDEROL 486
SYNTHETIC LUBRICATING OIL

Product Use Description: Lubricant

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@chemtura.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

SECTION 2. HAZARDS IDENTIFICATION

| | |
|--------|------------------|
| Form | liquid |
| Colour | clear |
| Odour | hydrocarbon-like |

GHS Classification

Skin sensitisation : Category 1
Acute aquatic toxicity : Category 3
Chronic aquatic toxicity : Category 3

GHS label elements

Signal word : **Warning**

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Hazard pictograms



Hazard statements

: H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Other hazards

: None

Precautionary statements

: **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

| Chemical name | CAS-No. | Concentration (%) |
|---------------------|-----------|-------------------|
| Rape oil | 8002-13-9 | >= 5 - < 10 % |
| N-1-naphthylaniline | 90-30-2 | >= 0.25 - < 1 % |
| triphenyl phosphate | 115-86-6 | >= 0.1 - < 0.25 % |

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 discolouration (lips, ear lobes, fingernails), give oxygen as quickly as possible.



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- 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.
- Most important symptoms and effects, both acute and delayed : No information available.
- Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry powder
Foam
Alcohol-resistant foam
Water mist
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Burning produces noxious and toxic fumes.
- 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.



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- Environmental precautions : Should not be released into the environment.
Do not contaminate water.
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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|---------------------|-----------|--------------------------------|---------------------------|-----------|
| Rape oil | 8002-13-9 | TWA (mist - total) | 10 mg/m3 | NIOSH REL |
| | | TWA (mist - respirable) | 5 mg/m3 | NIOSH REL |
| | | PEL (Total dust) | 10 mg/m3 | CAL PEL |
| | | PEL (respirable dust fraction) | 5 mg/m3 | CAL PEL |
| N-1-naphthylaniline | 90-30-2 | TWA | 10 ml/m3 | ACGIH |
| triphenyl phosphate | 115-86-6 | TWA | 3 mg/m3 | ACGIH |
| | | TWA | 3 mg/m3 | OSHA Z-1 |
| | | TWA | 3 mg/m3 | OSHA P0 |
| | | TWA | 3 mg/m3 | NIOSH REL |
| | | PEL | 3 mg/m3 | CAL PEL |



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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.
Do not breathe dust or spray mist.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : clear
- Odor : hydrocarbon-like
- pH : No data available
- Pour point : -45 °C
Method: No information available.
- Flash point : 143 °C
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : No data available
- Relative density : No data available
- Density : 0.8795 g/cm3
- Solubility(ies)
- Water solubility : slightly soluble
- Partition coefficient: n-octanol/water : No data available
- Auto-ignition temperature : No data available
- Viscosity



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Viscosity, kinematic : 61 - 71 mm²/s (100 °C)
Method: ASTM D 445
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 : Heat

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute dermal toxicity : Acute toxicity estimate: 2,798 mg/kg
Method: Calculation method

Components:

N-1-naphthylaniline:

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

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

triphenyl phosphate:

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 200 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit, male and female): > 7,900 mg/kg



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Skin corrosion/irritation

Components:

N-1-naphthylaniline:

Species: Rabbit

Method: Draize Test

Result: No skin irritation

triphenyl phosphate:

Species: Rabbit

Exposure time: 4 h

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

Serious eye damage/eye irritation

Components:

N-1-naphthylaniline:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

triphenyl phosphate:

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

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.

triphenyl phosphate:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

GLP: yes



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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

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.

triphenyl phosphate:

Genotoxicity in vitro

- : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative
- : Test Type: in vitro assay
Metabolic activation: with and without metabolic activation
Result: negative
- : Test Type: Unscheduled DNA synthesis (UDS)
Result: negative

Germ cell mutagenicity -
Assessment

- : In vitro tests did not show mutagenic effects

Carcinogenicity

Components:

N-1-naphthylaniline:

Carcinogenicity -
Assessment

- : Animal testing did not show any carcinogenic effects.

triphenyl phosphate:

Carcinogenicity -
Assessment

- : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

triphenyl phosphate:

Reproductive toxicity -
Assessment

- : No toxicity to reproduction



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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.

triphenyl phosphate:

Exposure routes: Oral

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Further information

Product:

Remarks: There is no data available for this product.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish (Product) : Remarks:
No data available

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

Toxicity to algae (Product) : Remarks:
No data available

Toxicity to bacteria
N-1-naphthylaniline : EC50: 2 mg/l
(Component) Exposure time: 48 h
Species: Protozoa

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

Toxicity to fish (Chronic toxicity)
triphenyl phosphate : NOEC: 0.037 mg/l
(Component) Exposure time: 30 d
Species: Oncorhynchus mykiss (rainbow trout)



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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

N-1-naphthylaniline
(Component)

: NOEC: 0.02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: yes

Elimination information (persistence and degradability)

Bioaccumulation (Product)

: Remarks:
No data available

Mobility (Product)

: Remarks:
No data available

Biodegradability

N-1-naphthylaniline
(Component)

: aerobic
Result: According to the results of tests of biodegradability this product is not readily biodegradable.
0 %
Method: OECD Test Guideline 301

triphenyl phosphate
(Component)

: aerobic
Result: Readily biodegradable.
83 - 94 %
Method: OECD Test Guideline 301

Ecotoxicology Assessment

Results of PBT assessment (Product)

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

Additional ecological
information (Product)

: There is no data available for this product.

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



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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

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 | * |
| 2-naphthylamine | 91-59-8 | 10 | * |

*: 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 : Respiratory or skin sensitisation

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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.



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California Prop 65

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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 | Not 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.