

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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

1.1 Product identifier

Trade name : ANDEROL 555

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, a division of Chemtura Corporation
Groot Egtenrayseweg 23
5928 PA Venlo
Netherlands

Telephone : +31-77 396 0340

Supplier
Chemtura Manufacturing UK Limited
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.

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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 (%)
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
diphenylamine	122-39-4 204-539-4 01-2119488966-13-0004	Acute Tox.3; H331 Acute Tox.3; H311 Acute Tox.3; H301 STOT RE2; H373 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0.1 - < 0.25

For explanation of abbreviations see section 16.

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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 : Burning produces noxious and toxic fumes.

5.3 Advice for firefighters

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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

for firefighters

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
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).
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.
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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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:
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

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

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.

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

- 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 : Breathing apparatus needed only when aerosol or mist is formed.
Respirator with filter for organic vapour

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 : characteristic
- Odour Threshold : No data available
- : Not applicable
- : No data available
- Flash point : 250 °C
- Evaporation rate : No data available
- Flammability (solid, gas) : Not applicable
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : No data available
- Relative vapour density : No data available
- Density : 0.957 g/cm³ (15 °C)
- Solubility(ies)

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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, dynamic : 93.5 mPa.s (40 °C)

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 : No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid : Exposure to moisture
Contamination

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NOx)

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation 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

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

Components:

N-1-naphthylaniline:

Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation

diphenylamine:

Species: Rabbit
Result: Mild eye irritation

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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 is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

diphenylamine:

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

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1.2 mg/l
aquatic invertebrates 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- : log Pow: 4.28
octanol/water

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

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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: The product itself has not been tested.
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.

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : diphenylamine

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

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

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

Canadian Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Australia Inventory of Chemical Substances (AICS) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances : Not in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory : On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) : On the inventory, or in compliance with the inventory

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

United States TSCA Inventory : 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.

Carechem24 International Worldwide Coverage

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
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285
	Vietnam	+65 3158 1255
	India	+65 3158 1198
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Bangladesh	+65 3158 1200
<u>Middle East / Africa:</u>	Arabic speaking countries	+44 (0) 1235 239 671
	All other countries	+44 (0) 1235 239 670
<u>America</u>	United States / Canada	001866 928 0789
<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
	Mexico	+52 555 004 8763

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 consid-

ANDEROL 555

Version 1.8

Revision Date 22.09.2016

Print Date 26.09.2016

ered 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.