according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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

1.1 Product identifier

Trade name : ANDEROL 556

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

Use of the Sub- : Lubricant

stance/Mixture

Recommended restrictions

on use

Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

:

Company: <u>Manufacturer</u>

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: MSDSRe-

quest@lanxess.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.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Cat-

H412: Harmful to aquatic life with long lasting effects.

egory 3

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

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
N-1-naphthylaniline	90-30-2 201-983-0 01-2119488704-27- xxxx	Acute Tox. 4; H302 Skin Sens. 1B; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 0.25 - < 1

For explanation of abbreviations see section 16.

according to Regulation (EC) No. 1907/2006

Energizing Chemistry

ANDEROL 556

Revision Date: Date of last issue: 13.05.2020 Version SDS Number: 00000007710 Date of first issue: 01.04.2014 1.11 06.10.2020

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled Remove victim to fresh air and keep at rest in a position com-

fortable for breathing.

If not breathing, give artificial respiration.

Call a physician or poison control centre immediately.

If breathing is difficult, give oxygen.

Keep respiratory tract clear.

Wash off with soap and plenty of water. In case of skin contact

If symptoms persist, call a physician.

Take off contaminated clothing and wash before reuse.

In case of eye contact If eye irritation persists, consult a specialist.

If swallowed Rinse mouth with water.

If victim is fully conscious, give a cupful of water.

DO NOT induce vomiting unless directed to do so by a physi-

cian or poison control center.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Do not give milk or alcoholic beverages.

Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks 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 : Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry powder

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

fighting

Specific hazards during fire- : Burning produces noxious and toxic fumes.

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

5.3 Advice for firefighters

Special protective equipment :

for firefighters

Wear full protective clothing and self-contained breathing ap-

paratus.

Further information : Use water spray to cool unopened containers.

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.

Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform

respective authorities.

The product should not be allowed to enter drains, water

courses or the soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Prevent further leakage or spillage if safe to do so.

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

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 work-

day.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Lubricant

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:

Substance name	End Use	Exposure routes	Potential health effects	Value
N-1-naphthylaniline	Workers	Inhalation	Long-term systemic effects	0.18 mg/m3
	Workers	Inhalation	Acute systemic effects	44 mg/m3
	Workers	Dermal	Long-term systemic effects	0.05 mg/kg
	Workers	Dermal	Acute systemic effects	6.67 mg/kg
	General exposures	Inhalation	Long-term systemic effects	0.044 mg/m3
	General exposures	Inhalation	Acute systemic ef- fects	33 mg/m3
	General exposures	Dermal	Long-term systemic effects	0.03 mg/kg
	General exposures	Dermal	Long-term systemic effects	3.33 mg/kg
	General exposures	Ingestion	Long-term systemic effects	0.03 mg/kg
	General exposures	Ingestion	Acute systemic effects	8 mg/kg

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

Substance name	Environmental Compartment	Value
N-1-naphthylaniline	Fresh water	0.0002 mg/l
	Marine water	0.00002 mg/l
	Fresh water sediment	0.0344 mg/kg
	Marine sediment	0.00344 mg/kg
	Soil	0.0068 mg/kg
	STP	100 mg/l

8.2 Exposure controls

Personal protective equipment

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves Before remov-

ing gloves clean them with soap and water.

Skin and body protection : Choose body protection according to the amount and con-

centration of the dangerous substance at the work place.

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

In case of insufficient ventilation, wear suitable respiratory

equipment.

Use respiratory protective equipment when using this product

at elevated temperatures (see section 8).

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : light yellow

Odour : mild

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : 250 °C

Method: ASTM D 92

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

Not applicable

Lower explosion limit / Lower

flammability limit

Not applicable

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 0.957 g/cm3 (15.6 °C)

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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, kinematic : 98.5 mm2/s (40 °C)

9.2 Other information

Flammability (liquids) : Not classified as supporting combustion according to the

transport regulations.

Molecular weight : No data 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., No decom-

position if used as directed.

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 monoxide, carbon dioxide and unburned hydrocar-

bons (smoke).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of :

exposure

Inhalation

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Eye contact Skin contact Skin Absorption

Acute toxicity

Product:

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

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

Skin corrosion/irritation

Components:

N-1-naphthylaniline:

Species : Rabbit
Method : Draize Test
Result : No skin irritation

Serious eye damage/eye irritation

Components:

N-1-naphthylaniline:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

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

Germ cell mutagenicity

Components:

N-1-naphthylaniline:

Genotoxicity in vitro : Test Type: Ames test

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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- As-

sessment

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 - Assess-

ment

: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

No data available

STOT - single exposure

Product:

Remarks : No data available

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.

SECTION 12: Ecological information

12.1 Toxicity

Components:

N-1-naphthylaniline:

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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

M-Factor (Acute aquatic tox-

icity)

: 1

Toxicity to microorganisms : 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 (Chron-

ic toxicity)

NOEC: 0.02 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Analytical monitoring: yes

M-Factor (Chronic aquatic

toxicity)

: 1

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: 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

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

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

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

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of wastes in an approved waste disposal facility.

The product should not be allowed to enter drains, water

courses or the soil.

In accordance with local and national regulations.

Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Contaminated packaging : 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

according to Regulation (EC) No. 1907/2006

Energizing Chemistry

ANDEROL 556

Date of last issue: 13.05.2020 Version Revision Date: SDS Number: Date of first issue: 01.04.2014 1.11 06.10.2020 000000007710

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 regu-

lations.

14.7 Transport in bulk according to Annex II of Marpol 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 (Regu-

lation (EC) No 1907/2006 (REACH),

Article 57).

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EC) No 850/2004 on persistent organic pol- : Not applicable

lutants

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:

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

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

TCSI : On the inventory, or in compliance with the inventory

US.TSCA : All substances listed as active on the TSCA inventory

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.

H317 : May cause an allergic skin reaction.

H373 : May cause damage to organs through prolonged or repeated

exposure if swallowed.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration: ICAO - International Civil Aviation Organization: IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature;

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture: Classification procedure:

Aquatic Chronic 3 H412 Calculation method

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.

DK / EN

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Annex: Exposure Scenarios

Table of Contents

Number	Title
ES 1	Formulation or re-packing; Formulation of preparations; Lubricants, greases, release products; (N-1-naphthylaniline, CAS: 90-30-2).
ES 2	Use at industrial sites; General exposures; Lubricants, greases, release products; Engine lubricant service; (N-1-naphthylaniline, CAS: 90-30-2).
ES 3	Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; In-door use; (N-1-naphthylaniline, CAS: 90-30-2).
ES 4	Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; Out-door use; (N-1-naphthylaniline, CAS: 90-30-2).
ES 5	Use at industrial sites; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; (N-1-naphthylaniline, CAS: 90-30-2).
ES 6	Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Indoor use.
ES 7	Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Outdoor use.
ES 8	Use at industrial sites; Lubricants, greases, release products; Treatment by heating; (open systems).

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 1: Formulation or re-packing; Formulation of preparations; Lubricants, greases, release products; (N-1-naphthylaniline, CAS: 90-30-2).

1.1. Title section

Exposure Scenario name	: Formulation of preparations, Lubricants, greases, release products
Structured Short Title	: Formulation or re-packing; Formulation of preparations; Lubricants, greases, release products; (N-1-naphthylaniline, CAS: 90-30-2).
Substance	: N-1-naphthylaniline <u>EC-No.:</u> 201-983-0 <u>Registration number:</u> 01-2119488704-27-xxxx

Environm	nent	
CS 1	Formulation of preparations ERC2	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Use in closed batch process (synthesis or formulation)	PROC3
CS 5	Use in batch and other process (synthesis) where opportunity for exposure arises	PROC4
CS 6	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)	PROC5
CS 7	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities	PROC8a
CS 8	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b
CS 9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	PROC9
CS 10	Use as laboratory reagent	PROC15

1.2. Conditions of use affecting exposure

1.2.1. Control of environmental exposure: Formulation of preparations (ERC2)

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Amount used (or contained in articles), frequency and duration of use/exposure

Daily amount per site : 233.33 kg

Annual amount per site : 70000 kg

Release type : Intermittent use/release

Emission days : 300

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures related to sewage treatment plant

STP type : Municipal sewage treatment plant

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.005 %

Emission or Release Factor: Water

Worst case assumption 0 %

Emission or Release Factor: Soil

Worst case assumption 0 %

1.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Physical form of product : Liquid substance

Vapour pressure : < 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 480 min

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly). 5 days/week

Technical and organisational conditions and measures

Handle substance within a closed system.

Provide a basic standard of general ventilation (1 to 3 air changes per hour).

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

<=27%

Physical form of product : Liquid substance

Vapour pressure : < 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 480 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly). 5 days/week

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Handle substance within a closed system.

Use only in area provided with appropriate exhaust ventilation.

Inhalation - minimum efficiency of 90 %

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.4. Control of worker exposure: Use in closed batch process (synthesis or formulation) (PROC3)

Product (article) characteristics

<=27%

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly). 5 days/week

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.5. Control of worker exposure: Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)

Product (article) characteristics

<=27%

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Physical form of product : Liquid mixture

Vapour pressure : < 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Use frequency : 5 days/week

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.6. Control of worker exposure: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) (PROC5)

Product (article) characteristics

Limit the substance content in the product to 10 %.

Physical form of product : Liquid mixture

Vapour pressure : < 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Use frequency : 5 days/week

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.7. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Product (article) characteristics

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Physical form of product : Solid, low dustiness

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 60 min

Use frequency : 5 days/week

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

1.2.8. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Product (article) characteristics

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Physical form of product : Solid, low dustiness

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 60 min

Use frequency : 5 days/week

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 95 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.9. Control of worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

<=27%

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

1.2.10. Control of worker exposure: Use as laboratory reagent (PROC15)

Product (article) characteristics

Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Physical form of product : Solid, low dustiness

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

Inhalation - minimum efficiency of 90 %

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

1.3. Exposure estimation and reference to its source

1.3.1. Environmental release and exposure: Formulation of preparations (ERC2)

Protection Target	Exposure estimate	RCR
Fresh water	0.000007 mg/L (EASY TRA v4.1)	0.033
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Soil	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Sewage treatment plant	< 0.0000001 mg/L (EASY TRA v4.1)	< 0.001

1.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	· ·	0.091 mg/m³ (EASY TRA v4.1)	0.508
dermal	systemic	· ·	0.002 mg/kg bw/day (EASY TRA v4.1)	0.034

1.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.01 mg/m³ (ECETOC TRA worker v3)	0.054
dermal	systemic	long-term	0.019 mg/kg bw/day (ECETOC TRA worker v3)	0.37

1.3.4. Worker exposure: Use in closed batch process (synthesis or formulation) (PROC3)

Exposure route	Health effect	Exposure indica-	Exposure esti-	RCR
----------------	---------------	------------------	----------------	-----

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

		tor	mate	
inhalative	systemic		0.091 mg/m³ (ECETOC TRA worker v3)	0.508
dermal	systemic		0.009 mg/kg bw/day (ECETOC TRA worker v3)	0.185

1.3.5. Worker exposure: Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.055 mg/m³ (ECETOC TRA worker v3)	0.305
dermal	systemic	long-term	0.022 mg/kg bw/day (ECETOC TRA worker v3)	0.444

1.3.6. Worker exposure: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) (PROC5)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.033 mg/m³ (ECETOC TRA worker v3)	0.183
dermal	systemic	long-term	0.016 mg/kg bw/day (ECETOC TRA worker v3)	0.329

1.3.7. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.01 mg/m³ (EASY TRA v4.1)	0.056
dermal	systemic		0.017 mg/kg bw/day (RISKOFDERM v2.1)	0.336

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

1.3.8. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.001 mg/m ³ (EASY TRA v4.1)	0.006
dermal	systemic	long-term	0.017 mg/kg bw/day (RISKOFDERM v2.1)	0.336

1.3.9. Worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.055 mg/m³ (ECETOC TRA worker v3)	0.305
dermal	systemic		0.022 mg/kg bw/day (ECETOC TRA worker v3)	0.444

1.3.10. Worker exposure: Use as laboratory reagent (PROC15)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.006 mg/m ³ (EASY TRA v4.1)	0.033
dermal	systemic		0.010 mg/kg bw/day (EASY TRA v4.1)	0.206

1.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 2: Use at industrial sites; General exposures; Lubricants, greases, release products; Engine lubricant service; (N-1-naphthylaniline, CAS: 90-30-2).

2.1. Title section

Exposure Scenario name	: General exposures, Lubricants, greases, release products, Engine lubricant service
Structured Short Title	: Use at industrial sites; General exposures; Lubricants, greases, release products; Engine lubricant service; (N-1-naphthylaniline, CAS: 90-30-2).
Substance	: N-1-naphthylaniline <u>EC-No.:</u> 201-983-0 <u>Registration number:</u> 01-2119488704-27-xxxx

Environn	nent	
CS 1	Industrial use of processing aids in processes and products, not becoming part of articles	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b
CS 5	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	PROC9

2.2. Conditions of use affecting exposure

2.2.1. Control of environmental exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Amount used (or contained in articles), frequency and duration of use/exposure				
Daily amount per site	:	100 kg		
Annual amount per site	:	30000 kg		
Release type	:	Intermittent use/release		
Emission days	:	300		

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures related to sewage treatment plant

STP type : Municipal sewage treatment plant

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.005 %

Emission or Release Factor: Water

Worst case assumption 0 %

Emission or Release Factor: Soil

Worst case assumption 0 %

2.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

2.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

2.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

2.2.5. Control of worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

2.3. Exposure estimation and reference to its source

2.3.1. Environmental release and exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Protection Target	Exposure estimate	RCR
Fresh water	0.000067 mg/L (EASY TRA v4.1)	0.033
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Soil	0.0000012 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Sewage treatment plant	< 0.0000001 mg/L (EASY TRA v4.1)	< 0.001

2.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.018 mg/m³ (EASY TRA v4.1)	0.102
dermal	systemic		< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

2.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.097 mg/m³ (ECETOC TRA worker v3)	0.541
dermal	systemic		0.003 mg/kg bw/day (ECETOC TRA worker v3)	0.069

2.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.110 mg/m³ (ECETOC TRA worker v3)	0.609
dermal	systemic		0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

2.3.5. Worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.097 mg/m³ (ECETOC TRA worker v3)	0.541
dermal	systemic		0.007 mg/kg bw/day (ECETOC TRA worker v3)	0.137

2.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 3: Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; In-door use; (N-1-naphthylaniline, CAS: 90-30-2).

3.1. Title section

Exposure Scenario name	: General exposures, Lubricants, greases, release products, Engine lubricant service, Indoor use
Structured Short Title	: Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; In-door use; (N-1-naphthylaniline, CAS: 90-30-2).
Substance	: N-1-naphthylaniline <u>EC-No.:</u> 201-983-0 <u>Registration number:</u> 01-2119488704-27-xxxx

Environment				
CS 1	Wide dispersive indoor use of substances in closed systems ERC9a			
Worker				
CS 2	Use in closed process, no likelihood of exposure	PROC1		
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2		
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities	PROC8a		
CS 5	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b		
CS 6	Heat and pressure transfer fluids in dispersive, professional use but closed systems	PROC20		

3.2. Conditions of use affecting exposure

3.2.1. Control of environmental exposure: Wide dispersive indoor use of substances in closed systems (ERC9a)

Amount used (or contained in articles), frequency and duration of use/exposure				
Daily amount for wide dispersive uses	:	0.002 kg		
Annual amount for wide disperse	:	15000 kg		

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

uses

Release type : Intermittent use/release

Emission days : 365

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Conditions and measures related to sewage treatment plant

STP type : Municipal sewage treatment plant

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.01 %

Emission or Release Factor: Water

Worst case assumption 0.05 %

Emission or Release Factor: Soil Worst case assumption 0.1 %

3.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Ensure adequate ventilation, especially in confined areas.

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

3.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

3.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

3.2.5. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

3.2.6. Control of worker exposure: Heat and pressure transfer fluids in dispersive, professional use but closed systems (PROC20)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Provide extraction ventilation at points where emissions occur.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

3.3. Exposure estimation and reference to its source

3.3.1. Environmental release and exposure: Wide dispersive indoor use of substances in closed systems (ERC9a)

Protection Target	Exposure estimate	RCR	
Fresh water	0.0000067 mg/L (EASY TRA v4.1)	0.034	
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.035	
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001	
Marine sediment	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001	
Soil	< 0.0000001 mg/kg dry weight (EASY TRA v4.1)	< 0.001	
Sewage treatment plant	0.0000005 mg/L (EASY TRA v4.1)	< 0.001	

3.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.009 mg/m³ (EASY TRA v4.1)	0.051
dermal	systemic	long-term	< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

3.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.091 mg/m ³ (EASY TRA v4.1)	0.508
dermal	systemic	long-term	0.014 mg/kg bw/day (EASY TRA v4.1)	0.274

3.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.055 mg/m³ (ECETOC TRA worker v3)	0.305
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

3.3.5. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.055 mg/m³ (ECETOC TRA worker v3)	0.305
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

3.3.6. Worker exposure: Heat and pressure transfer fluids in dispersive, professional use but closed systems (PROC20)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.055 mg/m³ (EASY TRA v4.1)	0.305
dermal	systemic	long-term	0.017 mg/kg bw/day (EASY TRA v4.1)	0.343

3.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 4: Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; Out-door use; (N-1-naphthylaniline, CAS: 90-30-2).

4.1. Title section

Exposure Scenario name	: General exposures, Lubricants, greases, release products, Engine lubricant service, Outdoor use
Structured Short Title	: Widespread use by professional workers; General exposures; Lubricants, greases, release products; Engine lubricant service; Out-door use; (N-1-naphthylaniline, CAS: 90-30-2).
Substance	: N-1-naphthylaniline <u>EC-No.:</u> 201-983-0 <u>Registration number:</u> 01-2119488704-27-xxxx

Environn	nent	
CS 1	Wide dispersive outdoor use of substances in closed Systems ERC9b	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities	PROC8a
CS 5	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b
CS 6	Heat and pressure transfer fluids in dispersive, professional use but closed systems	PROC20

4.2. Conditions of use affecting exposure

4.2.1. Control of environmental exposure: Wide dispersive outdoor use of substances in closed systems (ERC9b)

Amount used (or contained in art	icles), frequency and duration of use/exposure
Daily amount for wide dispersive uses	:	0.002 kg
Annual amount for wide disperse	:	15000 kg

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

uses

Release type : Intermittent use/release

Emission days : 365

Conditions and measures related to sewage treatment plant

STP type : none

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.01 %

Emission or Release Factor: Water

Worst case assumption 0.05 %

Emission or Release Factor: Soil Worst case assumption 0.1 %

4.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Outdoor

4.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Outdoor

4.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Outdoor

4.2.5. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Outdoor

4.2.6. Control of worker exposure: Heat and pressure transfer fluids in dispersive, professional use but closed systems (PROC20)

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Outdoor

4.3. Exposure estimation and reference to its source

4.3.1. Environmental release and exposure: Wide dispersive outdoor use of substances in closed systems (ERC9b)

Protection Target	Exposure estimate	RCR
Fresh water	0.0000067 mg/L (EASY TRA v4.1)	0.034
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.035
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Soil	< 0.0000001 mg/kg dry weight (EASY TRA v4.1)	< 0.001

4.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.006 mg/m³ (EASY TRA v4.1)	0.036
dermal	systemic	long-term	< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

4.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.064 mg/m ³ (EASY TRA v4.1)	0.355
dermal	systemic		0.013 mg/kg bw/day (EASY TRA v4.1)	0.274

4.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.038 mg/m³ (ECETOC TRA worker v3)	0.213
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

4.3.5. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.038 mg/m³ (ECETOC TRA worker v3)	0.213
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

4.3.6. Worker exposure: Heat and pressure transfer fluids in dispersive, professional use but closed systems (PROC20)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.038 mg/m ³ (EASY TRA v4.1)	0.213
dermal	systemic		0.017 mg/kg bw/day (EASY TRA v4.1)	0.343

4.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 5: Use at industrial sites; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; (N-1-naphthylaniline, CAS: 90-30-2).

5.1. Title section

Exposure Scenario name :	General exposures (open systems), Use of lubricants and greases, Corrosion inhibitors, Rolling, Brushing, Dipping, Spraying
Structured Short Title :	Use at industrial sites; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; (N-1-naphthylaniline, CAS: 90-30-2).
Substance :	N-1-naphthylaniline EC-No.: 201-983-0 Registration number: 01-2119488704-27-xxxx

Environn	nent	
CS 1	Industrial use of processing aids in processes and products, not becoming part of articles	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b
CS 5	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	PROC9
CS 6	Roller application or brushing	PROC10
CS 7	Treatment of articles by dipping and pouring	PROC13

5.2. Conditions of use affecting exposure

5.2.1. Control of environmental exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Amount used (or contained	in articles), frequency and duration of use/exposure
Daily amount per site	: 100 kg

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Annual amount per site : 30000 kg

Release type : Intermittent use/release

Emission days : 300

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures related to sewage treatment plant

STP type : Default industrial size

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.005 %

Emission or Release Factor: Water

Worst case assumption 0 %

Emission or Release Factor: Soil

Worst case assumption 0 %

5.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

5.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Assumes a good basic standard of occupational hygiene is implemented

5.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

5.2.5. Control of worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 60 min

Technical and organisational conditions and measures

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

5.2.6. Control of worker exposure: Roller application or brushing (PROC10)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Use only in area provided with appropriate exhaust ventilation.

Dermal - minimum efficiency of 90 %

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

5.2.7. Control of worker exposure: Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ıy).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Dermal - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

5.3. Exposure estimation and reference to its source

5.3.1. Environmental release and exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Protection Target	Exposure estimate	RCR
Fresh water	0.000067 mg/L (EASY TRA v4.1)	0.033
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight	< 0.001

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

	(EASY TRA v4.1)	
	0.0000012 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Sewage treatment plant	< 0.0000001 mg/L (EASY TRA v4.1)	< 0.001

5.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic	o .	0.018 mg/m³ (EASY TRA v4.1)	0.102
dermal	systemic		< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

5.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.097 mg/m³ (ECETOC TRA worker v3)	0.541
dermal	systemic		0.003 mg/kg bw/day (ECETOC TRA worker v3)	0.069

5.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.110 mg/m³ (ECETOC TRA worker v3)	0.609
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

5.3.5. Worker exposure: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9)

Exposure route Health effe	ct Exposure indica-	Exposure esti-	RCR
----------------------------	---------------------	----------------	-----

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

		tor	mate	
inhalative	systemic		0.037 mg/m³ (ECETOC TRA worker v3)	0.203
dermal	systemic		0.003 mg/kg bw/day (ECETOC TRA worker v3)	0.069

5.3.6. Worker exposure: Roller application or brushing (PROC10)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.009 mg/m³ (ECETOC TRA worker v3)	0.051
dermal	systemic	long-term	0.014 mg/kg bw/day (ECETOC TRA worker v3)	0.274

5.3.7. Worker exposure: Treatment of articles by dipping and pouring (PROC13)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.097 mg/m³ (ECETOC TRA worker v3)	0.541
dermal	systemic		0.014 mg/kg bw/day (ECETOC TRA worker v3)	0.274

5.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 6: Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Indoor use.

6.1. Title section

Exposure Scenario name	:	General exposures (open systems), Use of lubricants and greases, Corrosion inhibitors, Rolling, Brushing, Dipping, Spraying, Indoor use
Structured Short Title	:	Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Indoor use.
Substance	:	N-1-naphthylaniline EC-No.: 201-983-0 Registration number: 01-2119488704-27-xxxx

Environr	nent	
CS 1	Wide dispersive indoor use of processing aids in open ERC8a systems	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities	PROC8a
CS 5	Roller application or brushing	PROC10
CS 6	Treatment of articles by dipping and pouring	PROC13

6.2. Conditions of use affecting exposure

6.2.1. Control of environmental exposure: Wide dispersive indoor use of processing aids in open systems (ERC8a)

Amount used (or contained in articles), frequency and duration of use/exposure					
Daily amount per site	:	0.822 kg			
Annual amount for wide disperse uses	:	6000 kg			

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Release type : Intermittent use/release

Emission days : 365

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures related to sewage treatment plant

STP type : Municipal sewage treatment plant

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.010 %

Emission or Release Factor: Water Worst case assumption 0.050 %

Emission or Release Factor: Soil Worst case assumption 0.100 %

6.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Handle substance within a closed system.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

6.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

6.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear suitable gloves tested to EN374.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

6.2.5. Control of worker exposure: Roller application or brushing (PROC10)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Application rate : 0.2 L/min

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply

Ensure that direction of application is only downward.

6.2.6. Control of worker exposure: Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

6.3. Exposure estimation and reference to its source

6.3.1. Environmental release and exposure: Wide dispersive indoor use of processing aids in open systems (ERC8a)

Protection Target	Exposure estimate	RCR
Fresh water	0.0000067 mg/L (EASY TRA v4.1)	0.033
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Soil	< 0.0000001 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Sewage treatment plant	0.0000002 mg/L (EASY TRA v4.1)	< 0.001

6.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.009 mg/m ³ (EASY TRA v4.1)	0.051
dermal	systemic		< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

6.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.091 mg/m ³ (EASY TRA v4.1)	0.508
dermal	systemic		0.014 mg/kg bw/day (EASY TRA v4.1)	0.274

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

6.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.055 mg/m³ (ECETOC TRA worker v3)	0.305
dermal	systemic		0.008 mg/kg bw/day (ECETOC TRA worker v3)	0.165

6.3.5. Worker exposure: Roller application or brushing (PROC10)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.01 mg/m³ (ART)	0.054
dermal	systemic		0.038 mg/kg bw/day (RISKOFDERM v2.1)	0.76

6.3.6. Worker exposure: Treatment of articles by dipping and pouring (PROC13)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.091 mg/m³ (ECETOC TRA worker v3)	0.508
dermal	systemic		0.014 mg/kg bw/day (ECETOC TRA worker v3)	0.274

6.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 7: Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Outdoor use.

7.1. Title section

Exposure Scenario name :	General exposures (open systems), Use of lubricants and greases, Corrosion inhibitors, Rolling, Brushing, Dipping, Spraying, Outdoor use
Structured Short Title :	Widespread use by professional workers; General exposures (open systems); Lubricants, greases, release products; Corrosion inhibitors; Dipping; Spraying; Rolling, Brushing; Outdoor use.
Substance :	N-1-naphthylaniline <u>EC-No.:</u> 201-983-0 <u>Registration number:</u> 01-2119488704-27-xxxx

Environn	nent	
CS 1	Wide dispersive outdoor use of processing aids in open ERC8d systems	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Roller application or brushing	PROC10

7.2. Conditions of use affecting exposure

7.2.1. Control of environmental exposure: Wide dispersive outdoor use of processing aids in open systems (ERC8d)

Amount used (or contained in articles), frequency and duration of use/exposure			
Daily amount per site	:	0.822 kg	
Annual amount for wide disperse uses	:	6000 kg	
Release type	:	Intermittent use/release	
Emission days	:	365	

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Technical and organisational conditions and measures

Product must not be released into water without pre-treatment.

Soil emission controls are not applicable as there is no direct release to soil.

Conditions and measures related to sewage treatment plant

STP type : none

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor : 100

Emission or Release Factor: Air Worst case assumption 0.010 %

Emission or Release Factor: Water Worst case assumption 0.050 %

Emission or Release Factor: Soil Worst case assumption 0.100 %

7.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Handle substance within a closed system.

General standard operating procedures to control routine activities

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : 240 cm2

Indoor or outdoor use : Outdoor

Assumes a good basic standard of occupational hygiene is implemented

7.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers percentage substance in the product up to 1 %.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

General standard operating procedures to control routine activities

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Outdoor

Assumes a good basic standard of occupational hygiene is implemented

7.2.4. Control of worker exposure: Roller application or brushing (PROC10)

Product (article) characteristics

according to Regulation (EC) No. 1907/2006



ANDEROL 556

Version Date of last issue: 13.05.2020 Revision Date: SDS Number: 00000007710 Date of first issue: 01.04.2014 1.11 06.10.2020

Covers percentage substance in the product up to 1 %. Physical form of product

: Liquid mixture

Vapour pressure : > 10 hPa

Amount used (or contained in articles), frequency and duration of use/exposure

Application rate : 0.2 L/min

Duration : Exposure duration > 240 min

Use frequency Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

General standard operating procedures to control routine activities Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

Dermal - minimum efficiency of 90 %

Other conditions affecting workers exposure

: 960 cm2 Body parts exposed

Indoor or outdoor use Outdoor

Assumes a good basic standard of occupational hygiene is implemented

Additional good practice advice. Obligations according to Article 37(4) of REACH do not apply

Ensure that direction of application is only downward.

7.3. Exposure estimation and reference to its source

7.3.1. Environmental release and exposure: Wide dispersive outdoor use of processing aids in open systems (ERC8d)

Protection Target	Exposure estimate	RCR
Fresh water	0.0000067 mg/L (EASY TRA v4.1)	0.033
Marine water	0.0000007 mg/L (EASY TRA v4.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EASY TRA v4.1)	< 0.001
Marine sediment	0.0000027 mg/kg dry weight	< 0.001

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

	(EASY TRA v4.1)	
Soil	< 0.0000001 mg/kg dry weight (EASY TRA v4.1)	< 0.001

7.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.006 mg/m ³ (EASY TRA v4.1)	0.036
dermal	systemic	long-term	< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

7.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	o .	0.064 mg/m ³ (EASY TRA v4.1)	0.355
dermal	systemic	o .	0.014 mg/kg bw/day (EASY TRA v4.1)	0.274

7.3.4. Worker exposure: Roller application or brushing (PROC10)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.01 mg/m³ (ART)	0.054
dermal	systemic		0.038 mg/kg bw/day (RISKOFDERM v2.1)	0.76

7.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.

according to Regulation (EC) No. 1907/2006

LANXESS Energizing Chemistry

ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

ES 8: Use at industrial sites; Lubricants, greases, release products; Treatment by heating; (open systems).

8.1. Title section

Exposure Scenario name	:	Treatment by heating, Lubricants, greases, release products, (open systems)
Structured Short Title	:	Use at industrial sites; Lubricants, greases, release products; Treatment by heating; (open systems).
Substance	:	N-1-naphthylaniline EC-No.: 201-983-0 Registration number: 01-2119488704-27-xxxx

Environi	ment	
CS 1	Industrial use of processing aids in processes and ERC4 products, not becoming part of articles	
Worker		
CS 2	Use in closed process, no likelihood of exposure	PROC1
CS 3	Use in closed, continuous process with occasional controlled exposure	PROC2
CS 4	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities	PROC8b
CS 5	Treatment of articles by dipping and pouring	PROC13

8.2. Conditions of use affecting exposure

8.2.1. Control of environmental exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Amount used (or contained in articles), frequency and duration of use/exposure				
Daily amount per site	: 2	20 kg		
Annual amount per site	: 6	6000 kg		
Release type	: lı	ntermittent use/release		
Emission days	: 3	500		
Technical and organisational conditions and measures				
Product must not be released into water without pre-treatment.				

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Conditions and measures related to sewage treatment plant

STP type : Municipal sewage treatment plant

STP effluent : 2,000 m3/d

Conditions and measures related to treatment of waste (including article waste)

: 100

Waste treatment : Can be incinerated, when in compliance with local regulations.

Other conditions affecting environmental exposure

Receiving surface water flow : 18,000 m3/d

Local freshwater dilution factor : 10

Local marine water dilution factor

Emission or Release Factor: Air

Worst case assumption 0.005 %

Emission or Release Factor: Water Worst case assumption < 0.001 %

Emission or Release Factor: Soil

Worst case assumption 0 %

8.2.2. Control of worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Body parts exposed : 240 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

8.2.3. Control of worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Dermal - minimum efficiency of 95 %

Other conditions affecting workers exposure

Body parts exposed : Palms of both hands (480 cm2)

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

8.2.4. Control of worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration < 240 min

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Technical and organisational conditions and measures

Ensure adequate ventilation, especially in confined areas.

Ensure operatives are trained to minimise exposures.

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Suitable mask with particle filter P3 (European Norm 143)

Dermal - minimum efficiency of 98 %

Inhalation - minimum efficiency of 98 %

Other conditions affecting workers exposure

Body parts exposed : 960 cm2

Indoor or outdoor use : Indoor

Assumes a good basic standard of occupational hygiene is implemented

Process Temperature 123 °C

8.2.5. Control of worker exposure: Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Covers the percentage of the substance in the product up to 5%.

Physical form of product : Liquid mixture

Amount used (or contained in articles), frequency and duration of use/exposure

Duration : Exposure duration > 240 min

Use frequency : Covers daily exposures up to 8 hours (unless stated different-

ly).

Technical and organisational conditions and measures

Ensure operatives are trained to minimise exposures.

Use only in area provided with appropriate exhaust ventilation.

Inhalation - minimum efficiency of 90 %

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Suitable mask with particle filter P3 (European Norm 143)

Dermal - minimum efficiency of 98 %

Inhalation - minimum efficiency of 98 %

according to Regulation (EC) No. 1907/2006



ANDEROL 556

 Version
 Revision Date:
 SDS Number:
 Date of last issue: 13.05.2020

 1.11
 06.10.2020
 000000007710
 Date of first issue: 01.04.2014

Other conditions affecting workers exposure				
Body parts exposed		: Pa	ms of both hands (480 cm2)	
Indoor or outdoor use		: Ind	oor	
Assumes a good basic standard of occupational hygiene is implemented				
Process Temperature 123 °C				

8.3. Exposure estimation and reference to its source

8.3.1. Environmental release and exposure: Industrial use of processing aids in processes and products, not becoming part of articles (ERC4)

Protection Target	Exposure estimate	RCR
Fresh water	0.000007 mg/L (EUSES v2.1)	0.033
Marine water	0.0000007 mg/L (EUSES v2.1)	0.034
Fresh water sediment	0.000026 mg/kg dry weight (EUSES v2.1)	< 0.01
Marine sediment	0.0000027 mg/kg dry weight (EUSES v2.1)	< 0.01
Soil	0.0000003 mg/kg dry weight (EUSES v2.1)	< 0.001
Sewage treatment plant	< 0.0000001 mg/L (EUSES v2.1)	< 0.001

8.3.2. Worker exposure: Use in closed process, no likelihood of exposure (PROC1)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic		0.018 mg/m³ (EASY TRA v4.1)	0.102
dermal	systemic		< 0.001 mg/kg bw/day (EASY TRA v4.1)	0.007

8.3.3. Worker exposure: Use in closed, continuous process with occasional controlled exposure (PROC2)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.097 mg/m³ (ECETOC TRA)	0.541

according to Regulation (EC) No. 1907/2006



ANDEROL 556

Version 1.11	Revision Date: 06.10.2020	SDS Number: 000000007710	Date of last issue: 13.05.20 Date of first issue: 01.04.20	-
dermal	systemic	long-term	0.003 mg/kg	0.069
	5,5155	long to	bw/day (ECETOC	

TRA)

8.3.4. Worker exposure: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities (PROC8b)

Exposure route	Health effect	Exposure indicator	Exposure esti- mate	RCR
inhalative	systemic	long-term	0.110 mg/m³ (ECETOC TRA)	0.609
dermal	systemic	long-term	0.008 mg/kg bw/day (ECETOC TRA)	0.165

8.3.5. Worker exposure: Treatment of articles by dipping and pouring (PROC13)

Exposure route	Health effect	•	Exposure esti- mate	RCR
inhalative	systemic		0.037 mg/m³ (ECETOC TRA)	0.203
dermal	systemic		0.014 mg/kg bw/day (ECETOC TRA)	0.274

8.4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Fulfilling the above conditions the downstream user is deemed to work safely inside the boundaries set by this exposure scenario.

Other conditions should only be considered if the downstream user implements or recommends an exposure scenario which includes as a minimum the conditions described in this exposure scenario.