

Safety Data Sheet

Detergente cambio automatico



Safety Data Sheet dated 27/10/2021, version 3

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

1.1. Product identifier

Mixture identification:

Trade name: Detergente cambio automatico

Trade code: 9879

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

Recommended use:

Detergent/cleaner

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 - 22:00)

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

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Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

>= 40% - < 50% Distillati (petrolio) paraffinici pesanti, hydrotreated (649-467-00-8)

REACH No.: 01-2119484627-25, CAS: 64742-54-7, EC: 265-157-1

⚠ 3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

>= 20% - < 25% Distillates (petroleum), hydrotreated light naphthenic; Baseoil - unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C15 through C30 and produces a finished oil with a viscosity of less than 100 SUS at 100 oF (19cSt at 40 oC). It contains relatively few normal paraffins.]

Index number: 649-466-00-2, CAS: 64742-53-6, EC: 265-156-6

⚠ 3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

>= 5% - < 7% Benzenesulfonic acid , mono-C16-24-alkyl derivs, calcium salts

REACH No.: 01-2119492616-28, CAS: 70024-69-0, EC: 274-263-7

⚠ 3.3/2 Eye Irrit. 2 H319

>= 3% - < 5% Baseoil - unspecified.

REACH No.: 01-2119484627-25, CAS: 64742-54-7, EC: 265-157-1

⚠ 3.10/1 Asp. Tox. 1 H304

DECLL (CLP)*

*DECLL (CLP): Substance classified in accordance with Note L, Annex VI of EC Regulation (EC) 1272/2008. The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:

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None

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Appropriate Extinguishing Media:
 - To carbon dioxide.
 - To dust.
 - Foam
 - Water spray.
 - Not Recommended Extinguishing Media:
 - Do not use direct water jets.
- 5.2. Special hazards arising from the substance or mixture
 - Do not inhale explosion and combustion gases.
 - Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus .
 - Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 - Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - Wash with plenty of water.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - See also section 8 for recommended protective equipment.
 - Advice on general occupational hygiene:
 - Do not eat or drink while working.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Keep away from food, drink and feed.
 - None in particular.
 - Instructions as regards storage premises:
 - Adequately ventilated premises.
- 7.3. Specific end use(s)
 - None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - Baseoil - unspecified. - CAS: 64742-54-7
 - EU - TWA: 5 mg/m³
- DNEL Exposure Limit Values

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N.A.
 PNEC Exposure Limit Values
 N.A.
 8.2. Exposure controls
 Eye protection:
 Not needed for normal use. Anyway, operate according good working practices.
 Protection for skin:
 No special precaution must be adopted for normal use.
 Protection for hands:
 Not needed for normal use.
 Respiratory protection:
 Not needed for normal use.
 Thermal Hazards:
 None
 Environmental exposure controls:
 None
 Appropriate engineering controls:
 None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	N.A.	--	--
Odour:	N.A.	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	>65°C	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	N.A.	--	--
Kinematic viscosity:	> 20,5 mm ² /sec (40 °C)	--	--
Solubility in water:	N.A.	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-	N.A.	--	--

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octanol/water (log value):			
Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.872 g/ml	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Viscosity:	23 cSt @40°C	--	--

SECTION 10: Stability and reactivity

- 10.1. Reactivity
Stable under normal conditions
- 10.2. Chemical stability
Stable under normal conditions
- 10.3. Possibility of hazardous reactions
None
- 10.4. Conditions to avoid
Stable under normal conditions.
- 10.5. Incompatible materials
None in particular.
- 10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the product:
Detergente cambio automatico
 - a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
 - b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
 - c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met
 - d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
 - e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
 - f) carcinogenicity

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- Not classified
Based on available data, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
- Toxicological information of the main substances found in the product:
Baseoil - unspecified. - CAS: 64742-54-7
- f) carcinogenicity:
Negative
- h) STOT-single exposure:
Test: Respiratory Tract Irritant Positive
- j) aspiration hazard:
Test: May be fatal if swallowed and enters airways (physical-chemical properties) Positive
- 11.2. Information on other hazards
Endocrine disrupting properties:
No endocrine disruptor substances present in concentration $\geq 0.1\%$

SECTION 12: Ecological information

- 12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
Baseoil - unspecified. - CAS: 64742-54-7
- a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia > 10000 mg/l - Duration h: 48
Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48
Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 96
- 12.2. Persistence and degradability
None
Baseoil - unspecified. - CAS: 64742-54-7
Test: BIOGDG06 - Duration: 28gg - %: 31
- 12.3. Bioaccumulative potential
N.A.
- 12.4. Mobility in soil
N.A.
- 12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
- 12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration $\geq 0.1\%$
- 12.7. Other adverse effects
None

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
Recover if possible. In so doing, comply with the local and national regulations currently in force.



SECTION 14: Transport information

14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Volatile Organic compounds - VOCs = 0.04 %

Volatile Organic compounds - VOCs = 0.39 g/Kg

Volatile Organic compounds - VOCs = 0.34 g/l

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Where applicable, refer to the following regulatory provisions :
Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
None

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.
Substances for which a Chemical Safety Assessment has been carried out:
None

SECTION 16: Other information

Text of phrases referred to under heading 3:
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO: International Civil Aviation Organization.

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ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NA:	Not applicable
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

Exposure Scenario, 08/07/2019

Substance identity	
Chemical name	Benzenesulfonic acid , mono-C16-24-alkyl derivs, calcium salts
CAS No.	70024-69-0
EINECS No.	274-263-7

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9. **ES 9** Consumer use; Lubricants, greases, release products (PC24)

1. ES 1 Use at industrial site

1.1 TITLE SECTION

Exposure Scenario name	Industrial general use of lubricants and greases in vehicles and machinery
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process	ERC4 - ERC7
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Worker Contributing Scenario

CS2 Industrial	PROC1
CS3 Industrial	PROC2
CS4 Industrial	PROC8b
CS5 Industrial	PROC9

1.2 Conditions of use affecting exposure

1.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4, ERC7)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site (ERC4, ERC7)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-07 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 10000 t(tonnes)/year

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
Air filtration - particle removal	Air - minimum efficiency of: > 70 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

1.2. CS2: Worker Contributing Scenario: Industrial (PROC1)

Process Categories

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

1.2. CS3: Worker Contributing Scenario: Industrial (PROC2)

Process Categories

Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

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

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

1.2. CS4: Worker Contributing Scenario: Industrial (PROC8b)

Process Categories Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained. Isolated drainage to prevent discharge to soil Clear spills immediately.

1.2. CS5: Worker Contributing Scenario: Industrial (PROC9)

Process Categories Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Duration:

unless stated differently

1.3 Exposure estimation and reference to its source

1.3. CS2: Worker Contributing Scenario: Industrial (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	< 0.01

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	< 0.01

1.3. CS3: Worker Contributing Scenario: Industrial (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194
dermal, systemic, long-term	N/A	N/A	0.412

1.3. CS4: Worker Contributing Scenario: Industrial (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

1.3. CS5: Worker Contributing Scenario: Industrial (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

2. ES 2 Use at industrial site

2.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process	ERC4
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Worker Contributing Scenario

CS2 Storage	PROC2
CS3 Spraying	PROC7
CS4 Material transfers	PROC8b
CS5 Material transfers	PROC9
CS6 Roller, spreader, flow application	PROC10
CS7 Dipping, immersion and pouring	PROC13

2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 10 t(tonnes)/year

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
Air filtration - particle removal	Air - minimum efficiency of: > 70 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

2.2. CS2: Worker Contributing Scenario: Storage (PROC2)

Process Categories

Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

2.2. CS3: Worker Contributing Scenario: Spraying (PROC7)

Process Categories

Industrial spraying (PROC7)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374.

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

Additional Good Practice Advice:

Ensure control measures are regularly inspected and maintained.

2.2. CS4: Worker Contributing Scenario: Material transfers (PROC8b)

Process Categories

Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Additional Good Practice Advice:

Clear transfer lines prior to de-coupling. Clear spills immediately.

2.2. CS5: Worker Contributing Scenario: Material transfers (PROC9)

Process Categories

Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC9)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

2.2. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Process Categories

Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374.

2.2. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Process Categories

Treatment of articles by dipping and pouring (PROC13)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

2.3 Exposure estimation and reference to its source

2.3. CS2: Worker Contributing Scenario: Storage (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

2.3. CS3: Worker Contributing Scenario: Spraying (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.515
inhalative, systemic, long-term	N/A	N/A	0.078
dermal, local, long-term	N/A	N/A	0.039

2.3. CS4: Worker Contributing Scenario: Material transfers (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

2.3. CS5: Worker Contributing Scenario: Material transfers (PROC9)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.412
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

2.3. CS6: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.078

2.3. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823

inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.388

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

3. ES 3 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process	ERC4
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Worker Contributing Scenario

CS2 Dipping, immersion and pouring - Bulk transfers	PROC8b - PROC13
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3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC4)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 10000 t(tonnes)/year

Daily amount per site 34000 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

3.2. CS2: Worker Contributing Scenario: Dipping, immersion and pouring - Bulk transfers (PROC8b, PROC13)

Process Categories

Transfer of substance or mixture (charging and discharging) at dedicated facilities -
Treatment of articles by dipping and pouring (PROC8b, PROC13)

Product (article) characteristics**Physical form of product:**

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures**Technical and organisational measures**

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

3.3 Exposure estimation and reference to its source**3.3. CS2: Worker Contributing Scenario: Dipping, immersion and pouring - Bulk transfers (PROC8b, PROC13)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194
dermal, local, long-term	N/A	N/A	0.388

3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

4. ES 4 Use at industrial site

4.1 TITLE SECTION

Exposure Scenario name	Metal working fluids / rolling oils
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a
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Worker Contributing Scenario

CS2 Metal machining operations	PROC2
CS3 Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes	PROC8b
CS4 Bulk transfers - Metal machining operations - General exposures	PROC17

4.2 Conditions of use affecting exposure

4.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 1000 t(tonnes)/year

Daily amount per site 32500 kg/day

Release type: Continuous release

Emission days: 300 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

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

Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

4.2. CS2: Worker Contributing Scenario: Metal machining operations (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

4.2. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Isolated drainage to prevent discharge to soil

4.2. CS4: Worker Contributing Scenario: Bulk transfers - Metal machining operations - General exposures (PROC17)

Process Categories	Lubrication at high energy conditions in metal working operations (PROC17)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

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

Personal protection

Wear suitable gloves tested to EN374 and sleeves. For further specification, refer to section 8 of the SDS

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

4.3 Exposure estimation and reference to its source

4.3. CS2: Worker Contributing Scenario: Metal machining operations (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

4.3. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance - Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

4.3. CS4: Worker Contributing Scenario: Bulk transfers - Metal machining operations - General exposures (PROC17)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.078

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

5. ES 5 Widespread use by professional workers

5.1 TITLE SECTION

Exposure Scenario name	Lubricating agent
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a - ERC9b
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Worker Contributing Scenario

CS2 Use in under containnet systems	PROC1
CS3 Drying and storage	PROC2
CS4 Equipment cleaning and maintenance	PROC8a
CS5 Disposal of wastes	PROC8b
CS6 Equipment cleaning and maintenance	PROC20
CS7 Machine	PROC24

5.2 Conditions of use affecting exposure

5.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a, ERC9b)

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

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

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

5.2. CS2: Worker Contributing Scenario: Use in under containnet systems (PROC1)

Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC1)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS3: Worker Contributing Scenario: Drying and storage (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Store substance within a closed system.

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS4: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC8a)

Process Categories	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Handle the product in a closed system
- Drain or remove substance from equipment prior to break-in or maintenance.
- Remove spills immediately
- Keep drains in watertight containers while awaiting dismantling or subsequent recycling

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.2. CS5: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Process Categories

Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Remove spills immediately
- Handle the product in a closed system

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.

5.2. CS6: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC20)

Process Categories

Use of functional fluids in small devices (PROC20)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

- Remove spills immediately
- Handle the product in a closed system

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.

5.2. CS7: Worker Contributing Scenario: Machine (PROC24)

Process Categories	High (mechanical) energy work-up of substances bound in/on materials and/or articles (PROC24)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Technical and organisational conditions and measures

Technical and organisational measures

Closed systems

Other conditions affecting worker exposure

Temperature: Covers use at ambient temperatures.

5.3 Exposure estimation and reference to its source

5.3. CS2: Worker Contributing Scenario: Use in under containnet systems (PROC1)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	< 0.01
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	< 0.01

5.3. CS3: Worker Contributing Scenario: Drying and storage (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

5.3. CS4: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01

dermal, local, long-term	N/A	N/A	0.194
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5.3. CS5: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

5.3. CS6: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC20)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.103
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.048

5.3. CS7: Worker Contributing Scenario: Machine (PROC24)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.17
inhalative, systemic, long-term	N/A	N/A	0.34
dermal, local, long-term	N/A	N/A	0.019

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

6. ES 6 Widespread use by professional workers

6.1 TITLE SECTION

Exposure Scenario name	Application of lubricants for machining parts or equipment by immersion, surface deposition by brushing or by spraying
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a - ERC8d
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Worker Contributing Scenario

CS2 Storage	PROC2
CS3 Bulk transfers - Equipment cleaning and maintenance	PROC8a
CS4 Disposal of wastes	PROC8b
CS5 Roller, spreader, flow application	PROC10
CS6 Hand held spraying	PROC11
CS7 Dipping, immersion and pouring	PROC13

6.2 Conditions of use affecting exposure

6.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a, ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8a, ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 5000 t(tonnes)/year

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal

Air - minimum efficiency of: > 70 %

Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %
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Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

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

Additional Good Practice Advice:

Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.

6.2. CS2: Worker Contributing Scenario: Storage (PROC2)

Process Categories

Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Store substance within a closed system.

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

6.2. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance (PROC8a)

Process Categories

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC8a)

Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in closed process

Clear transfer lines prior to de-coupling.

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

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

Additional Good Practice Advice:

Retain drain downs in sealed storage pending disposal or for subsequent recycle. Prevent leaks and prevent soil / water pollution caused by leaks.

6.2. CS4: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

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

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

Additional Good Practice Advice:

Prevent leaks and prevent soil / water pollution caused by leaks. Retain drain downs in sealed storage pending disposal or for subsequent recycle.

6.2. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Process Categories	Roller application or brushing (PROC10)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Handle the product in a closed system
Provide a basic standard of general ventilation (1 to 3 air changes per hour).

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

Personal protection

Wear suitable gloves tested to EN374.

6.2. CS6: Worker Contributing Scenario: Hand held spraying (PROC11)

Process Categories	Non industrial spraying (PROC11)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Handle the product in a closed system

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

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

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

6.2. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)**Process Categories**

Treatment of articles by dipping and pouring (PROC13)

*Product (article) characteristics***Physical form of product:**

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

*Amount used, frequency and duration of use/exposure***Duration:**

Covers daily exposures up to 8 hours

*Technical and organisational conditions and measures***Technical and organisational measures**

Handle the product in a closed system

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

Ensure material transfers are under containment or extract ventilation.

6.3 Exposure estimation and reference to its source**6.3. CS2: Worker Contributing Scenario: Storage (PROC2)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.082
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.039

6.3. CS3: Worker Contributing Scenario: Bulk transfers - Equipment cleaning and maintenance (PROC8a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

6.3. CS4: Worker Contributing Scenario: Disposal of wastes (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

6.3. CS5: Worker Contributing Scenario: Roller, spreader, flow application (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.078

6.3. CS6: Worker Contributing Scenario: Hand held spraying (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.644
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.097

6.3. CS7: Worker Contributing Scenario: Dipping, immersion and pouring (PROC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.388

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

7. ES 7 Widespread use by professional workers

7.1 TITLE SECTION

Exposure Scenario name	Metal working fluids / rolling oils
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a
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Worker Contributing Scenario

CS2 Equipment cleaning and maintenance	PROC2
CS3 Filling of equipment from drums or containers	PROC8b
CS4 Metal machining operations - Open systems - Material transfers - Disposal of wastes	PROC2

7.2 Conditions of use affecting exposure

7.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 17000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Technical and organisational conditions and measures

Control measures to prevent releases

Air filtration - particle removal	Air - minimum efficiency of: > 70 %
Pre-treatment of waste water by neutralization	Water - minimum efficiency of: > 92 %

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 20

7.2. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

Use in contained systems

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

7.2. CS3: Worker Contributing Scenario: Filling of equipment from drums or containers (PROC8b)

Process Categories	Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC8b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

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

7.2. CS4: Worker Contributing Scenario: Metal machining operations - Open systems - Material transfers - Disposal of wastes (PROC2)

Process Categories	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC2)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers percentage substance in the product up to 5 %.

Amount used, frequency and duration of use/exposure

Duration:

Covers daily exposures up to 8 hours

Technical and organisational conditions and measures

Technical and organisational measures

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

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

Personal protection

Wear suitable gloves tested to EN374.

7.3 Exposure estimation and reference to its source

7.3. CS2: Worker Contributing Scenario: Equipment cleaning and maintenance (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

7.3. CS3: Worker Contributing Scenario: Filling of equipment from drums or containers (PROC8b)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.823
inhalative, systemic, long-term	N/A	N/A	< 0.01
dermal, local, long-term	N/A	N/A	0.194

7.3. CS4: Worker Contributing Scenario: Metal machining operations - Open systems - Material transfers - Disposal of wastes (PROC2)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	N/A	N/A	0.33
inhalative, systemic, long-term	N/A	N/A	0.017
dermal, local, long-term	N/A	N/A	0.078

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

Guidance to check compliance with the exposure scenario:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

8. ES 8 Consumer use; Lubricants, greases, release products (PC24)

8.1 TITLE SECTION

Exposure Scenario name	Use of lubricants and greases
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Product Categories	Lubricants, greases, release products (PC24)

Environment Contributing Scenario

CS1 Solvent-based process	ERC9a
CS2 Solvent-based process	ERC9b

Consumer Contributing Scenario

CS3 Use in lubricants and greases	PC24
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8.2 Conditions of use affecting exposure

8.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC9a)

Environmental release categories	Widespread use of functional fluid (indoor) (ERC9a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 4000 kg/day

Release type: Continuous release

Emission days: 365 days per year

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

8.2. CS2: Environment Contributing Scenario: Solvent-based process (ERC9b)

Environmental release categories	Widespread use of functional fluid (outdoor) (ERC9b)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use (or from service life)**Amounts used:**

Daily amount per site 0.005775 kg/day

Release type: Continuous release**Emission days:** 365 days per year**Other conditions affecting environmental exposure****Local marine water dilution factor:** 100**Local freshwater dilution factor:** 10**8.2. CS3: Consumer Contributing Scenario: Use in lubricants and greases (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

Product (article) characteristics**Physical form of product:**

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use/exposure**Amounts used:**

For each use event, covers use amounts up to 1 kg

Duration:

Covers use up to 120 min/shift

Frequency:

Covers frequency up to: 1 applications per month

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 25 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** Covers use under typical household ventilation. 0.6 Air changer per hour**8.3 Exposure estimation and reference to its source**

N/A

8.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

9. ES 9 Consumer use; Lubricants, greases, release products (PC24)

9.1 TITLE SECTION

Exposure Scenario name	Use of lubricants and greases
Date - Version	08/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Product Categories	Lubricants, greases, release products (PC24)

Environment Contributing Scenario

CS1 Solvent-based process	ERC8a
CS2 Solvent-based process	ERC8d

Consumer Contributing Scenario

CS3 Use in lubricants and greases	PC24
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9.2 Conditions of use affecting exposure

9.2. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 0.005775 kg/day

Release type: Continuous release

Emission days: 365 days per year

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

9.2. CS2: Environment Contributing Scenario: Solvent-based process (ERC8d)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) (ERC8d)
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Product (article) characteristics

Physical form of product:

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use (or from service life)**Amounts used:**

Amount per use 50 g

Daily amount per site 0.002457 kg/day

Release type: Continuous release**Emission days:** 365 days per year***Other conditions affecting environmental exposure*****Local marine water dilution factor:** 100**Local freshwater dilution factor:** 10**9.2. CS3: Consumer Contributing Scenario: Use in lubricants and greases (PC24)****Product Categories**

Lubricants, greases, release products (PC24)

Product (article) characteristics**Physical form of product:**

Liquid

Vapour pressure:

1E-09 Pa

Concentration of substance in product:

Covers concentrations up to 2 %

Amount used, frequency and duration of use/exposure**Amounts used:**

Amount per use 50 g

Duration:

Covers exposure up to 5 min/shift

Frequency:

Covers exposure up to 2 times a week

Other conditions affecting consumers exposure**Room size:** Covers use in room size of 25 m³**Temperature:** Covers use at ambient temperatures.**Ventilation rate:** 0.6 Air changer per hour**9.3 Exposure estimation and reference to its source**

N/A

9.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES**Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.