ULTRITHANE 31 ACCELERATOR

HEALTH AND SAFETY DATA SHEET
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue Date: 15/02/2024
Version: 13

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Mixture identification:
Trade name: Ultrithane 31 Accelerator - A3555 - 1l
Trade code: PAF001A

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

Recommended use:

- Additive for paints
- IS - Industrial uses
- PW - Professional uses

1.3. Details of the supplier of the safety data sheet

Company:
Ultrimax Coatings Ltd
Shaw Lane Industrial Estate, Ogden Road, Doncaster, DN2 4SE
01302 856666

1.4. Emergency telephone number

01302 856666

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Flam. Liq. 3, H226 Flammable liquid and vapour.
STOT SE 3, H336 May cause drowsiness or dizziness. Aquatic Chronic 3, H412 Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Warning

Hazard statements:

H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P312 Call a doctor if you feel unwell.
P370+P378 In case of fire, use a foam fire extinguisher to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.

Special Provisions:
None

Contains
n-butyl acetate
2-methoxy-1-methylethyl acetate
dibutyltin dilaurate: May produce an allergic reaction.

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 >= 0.1%

Other hazards:
No other hazards

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:

>= 70% - < 80% n-butyl acetate
REACH No.: 01-2119485493-29-XXXX, Index number: 607-025-00-1, CAS: 123-86-4, EC: 204-658-1
Flam. Liq. 3 H226 Flammable liquid and vapour.
STOT SE 3 H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.

>= 20% - < 25% 2-methoxy-1-methylethyl acetate
REACH No.: 01-2119475791-29-XXXX, Index number: 607-195-00-7, CAS: 108-65-6, EC 203-603-9
Flam. Liq. 3 H226 Flammable liquid and vapour.
STOT SE 3 H336 May cause drowsiness or dizziness.

>= 0.25% - < 0.5% dibutyltin dilaurate
REACH No.: 01-2119496068-27-XXXX, Index number: 050-030-00-3, CAS: 77-58-7, EC: 201-039-8

Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 1 H370 Causes damage to organs.
Muta. 2 H341 Suspected of causing genetic defects.
Repr. 1B H360FD May damage fertility. May damage the unborn child.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
Aquatic Acute 1 H400 Very toxic to aquatic life. M=1.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects. M=1

Other information

N.A.

4. FIRST AID MEASURES

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath). Remove contaminated clothing immediately and dispose off safely.

In case of eye 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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment: None

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
In case of fire, use a foam fire extinguisher to extinguish.
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

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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.

6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Remove all sources of ignition.
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

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.
Store at temperatures close to 20 °C.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials: None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.
Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1

Product belongs to category:	Lower-tier threshold (tonnes)	Upper-tier threshold (tonnes)
P5c	5000	50000

7.3. Specific end use(s)

None in particular

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

n-butyl acetate - CAS: 123-86-4

ACGIH - TWA(8h): 241 mg/m3, 50 ppm - STEL(15min): 723 mg/m3, 150 ppm - Notes: Eye and URT irr
GVI - TWA(8h): 724 mg/m3, 150 ppm - STEL(15min): 966 mg/m3, 200 ppm - Notes: HR - CROAZIA
OSHA PEL - TWA(8h): 710 mg/m3, 150 ppm - Notes: USA - UNITED STATES
OSHA PEL - TWA(8h): 710 mg/m3, 150 ppm - Notes: USA - UNITED STATES
NIOSH REL - TWA(Up to 10h): 710 mg/m3, 150 ppm - STEL(15min): 950 mg/m3, 200 ppm - Notes: USA - UNITED STATES
VLA - TWA(8h): 724 mg/m3, 150 ppm - STEL(15min): 965 mg/m3, 200 ppm - Notes: ES - SPAGNA
OSHA PEL - TWA(8h): 710 mg/m3, 150 ppm - Notes: USA - UNITED STATES
NIOSH REL - TWA(Up to 10h): 710 mg/m3, 150 ppm - STEL(15min): 950 mg/m3, 200 ppm - Notes: USA - UNITED STATES
NIOSH REL - TWA(Up to 10h): 710 mg/m3, 150 ppm - STEL(15min): 950 mg/m3, 200 ppm - Notes: USA - UNITED STATES
MAK - TWA(8h): 480 mg/m3, 100 ppm - STEL(15min): 960 mg/m3, 200 ppm - Notes: CH - SUVA (Svizzera), SSc

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

EU - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 550 mg/m3, 100 ppm - Notes: (IOELV)

National - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 550 mg/m3, 100 ppm - Notes: IT - ITALIA (Skin)

National - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 550 mg/m3, 100 ppm - Notes: ES - SPAIN (Skin)

National - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 550 mg/m3, 100 ppm - Notes: FR - FRANCE (Skin)

National - TWA(8h): 270 mg/m3, 50 ppm - STEL(15min): 270 mg/m3, 50 ppm - Notes: DE - GERMANIA (AGS)

National - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 550 mg/m3, 100 ppm - Notes: RO - ROMANIA

National - TWA(8h): 260 mg/m3 - STEL(15min): 520 mg/m3 - Notes: PL - POLONIA (Skin)

National - TWA(8h): 274 mg/m3, 50 ppm - STEL(15min): 548 mg/m3, 100 ppm - Notes: GBR - REGNO UNITO (Skin)

National - TWA(8h): 275 mg/m3, 50 ppm - STEL(15min): 275 mg/m3, 50 ppm - Notes: CH - SVIZZERA

dibutyltin dilaurate - CAS: 77-58-7

ACGIH - TWA(8h): 0.1 mg/m3 - STEL(15min): 0.2 mg/m3 - Notes: misurato come stagno (Sn)

DNEL Exposure Limit Values

n-butyl acetate - CAS: 123-86-4

yl acetate - CAS: 123-86-4 Worker Industry: 600 mg/m3 - Worker Professional: 600 mg/m3 - Consumer: 300 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects Worker Industry: 300 mg/m3 - Worker Professional: 300 mg/m3 - Consumer: 35.7 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects Worker Industry: 11 mg/kg bw/d - Worker Professional: 11 mg/kg bw/d - Consumer: 6 mg/kg bw/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects Consumer: 2 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Consumer: 36 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects Worker Industry: 275 mg/m3 - Worker Professional: 275 mg/m3 - Consumer: 33 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 796 mg/kg bw/d - Worker Professional: 796 mg/kg bw/d - Consumer: 320 mg/kg bw/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects Worker Industry: 550 mg/m3 - Worker Professional: 550 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects

Consumer: 500 mg/kg bw/d - Exposure: Human Oral - Frequency: Short Term, systemic effects

dibutyltin dilaurate - CAS: 77-58-7

Worker Industry: 0.02 mg/m3 - Worker Professional: 0.02 mg/m3 - Consumer: 0.0046 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects Worker Industry: 0.059 mg/m3 - Worker Professional: 0.059 mg/m3 - Consumer: 0.04 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects Worker Industry: 0.43 mg/kg bw/d - Worker Professional: 0.43 mg/kg bw/d - Consumer: 0.16 mg/kg bw/d - Exposure: Human Dermal - Frequency: Long Term, systemic effects Worker Industry: 2.08 mg/kg bw/d - Worker Professional: 2.08 mg/kg bw/d - Consumer: 0.5 mg/kg bw/d - Exposure: Human Dermal - Frequency: Short Term, systemic effects Consumer: 0.02 mg/kg bw/d - Exposure: Human Oral - Frequency: Short Term, systemic effects

PNEC Exposure Limit Values

n-butyl acetate - CAS: 123-86-4

Target: Soil (agricultural) - Value: 0.09 mg/kg
Target: Fresh Water - Value: 0.18 mg/l
Target: Marine water - Value: 0.018 mg/l
Target: Freshwater sediments - Value: 0.981 mg/kg
Target: Marine water sediments - Value: 0.098 mg/kg

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Target: Fresh Water - Value: 0.635 mg/l
Target: Marine water - Value: 0.064 mg/l
Target: Freshwater sediments - Value: 3.29 mg/kg
Target: Marine water sediments - Value: 0.329 mg/kg
Target: Microorganisms in sewage treatments - Value: 100 mg/l

dibutyltin dilaurate - CAS: 77-58-7

Target: Fresh Water - Value: 0.005 mg/l
Target: Freshwater sediments - Value: 0.05 mg/kg
Target: Marine water - Value: 0.005 mg/l
Target: Marine water sediments - Value: 0.005 mg/kg
Target: Microorganisms in sewage treatments - Value: 100 mg/l

8.2. Exposure controls

Eye protection:

Eye glasses with side 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:

Use chemical resistant protective gloves (for chemicals and micro-organisms) complying with EN 374 regulation, which guarantee total protection.
For the definitive choice of material for work gloves, consider compatibility, degradation, breaking time and permeation.

The gloves have a wear time that depends on the length and on the use.
There is no material or combination of gloves materials that guarantees unlimited resistance to any single chemical or chemical compound.
Observe the instructions and information provided by the gloves manufacturer regarding use, storage, maintenance and replacement.
Gloves should be replaced regularly and whenever there are signs of damage.
Always make sure that the gloves are free from defects and that they are properly preserved and used.
Performance or effectiveness of glove can be reduced by physical/chemical damage and by poor maintenance.
Protective creams can increase the protective screen on the exposed areas of the skin, but should not be applied once the skin has already been exposed. After contact, rinse the skin thoroughly.
When frequent or prolonged contact is to be expected, the use of class 6 protective gloves (permeation time > 480 minutes according to EN3740-3) is recommended.
In case of occasional contact it is recommend the use of class 2 protective gloves (permeation time > 30 minutes according to EN 3740-3).
The user is required to evaluate which type of gloves best suits, basing on their use conditions and on the corresponding combination of risks.
NB: The choice of gloves must also take into account other specific job-related work, such as the presence of other chemicals, physical hazards and possible allergic reactions to the material used to manufacture the glove, so consult your supplier.

Respiratory protection:

Use an adequate respiratory device.
The choice of respirator must be based on known or expected exposure levels, on product risks and on safe operating limits of the selected respirator.
If the employees are exposed to concentrations above the exposure limit, we recommend wearing a Type A filter mask, whose class (1, 2 or 3) should be chosen in relation to the limit concentration of use (standard EN 14387).
In the case of gases or vapours of different nature, combine type filters (DIN EN 141) should be provided.
The use of respiratory protection means is necessary if the technical measures taken are not sufficient to limit the exposure of workers to the threshold values taken into account.

Thermal Hazards:

None

Environmental exposure controls:

Emissions from production processes, including those from ventilation equipment, should be checked for compliance with environmental protection regulations.

Appropriate engineering controls:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid	--	--
Colour:	Colourless	--	--
Odour:	Characteristic	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	126°C	--	--
Flammability:	Flammable	--	--
Lower and upper explosion limit:	LEL 1.2% - UEL 7.5% v/v (n-butyl acetate)	Extrapolation from Raw Material SDS	--
Flash point:	25 °C	EN ISO 3679	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	Not Relevant	--	--
Kinematic viscosity:	<= 20,5 mm2/ sec (40 °C)	--	--
Solubility in water:	insoluble	--	--
Solubility in oil:	Solubility in oil:	--	--
Partition coefficient n/octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	0.890 g/cm3 - 20°C	ISO 2811	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

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

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

None.

11. TOXILOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

ACCELERATING ADDITIVE

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

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

The product is classified: STOT SE 3 H336

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:

n-butyl acetate - CAS: 123-86-4

a) acute toxicity:

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 21 mg/l - Duration: 4h

Test: LD50 - Route: Oral - Species: Rat = 10760 mg/kg bw

Test: LD50 - Route: Skin - Species: Rabbit = 14112 mg/kg bw

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 23.5 mg/l

dibutyltin dilaurate - CAS: 77-58-7

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 2071 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2.000 mg/kg bw - Duration: 24h

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

12. TOXILOGICAL INFORMATION

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

ACCELERATING ADDITIVE

The product is classified: Aquatic Chronic 3 - H412

n-butyl acetate - CAS: 123-86-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 18 mg/l - Duration h: 96 - Notes: Metodo: OECD 203

Endpoint: EC50 - Species: Algae = 675 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia = 44 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae = 200 mg/l - Duration h: 72 - Notes: Acqua dolce (non salina)

Valore sperimentale

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 134 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72

Endpoint: EC50 - Species: Daphnia > 500 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish = 47.5 mg/l - Notes: 14 d

Endpoint: NOEC - Species: Daphnia > 100 mg/l - Notes: 21 d

dibutyltin dilaurate - CAS: 77-58-7

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 0.463 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 1 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 21.2 mg/l - Duration h: 96

12.2. Persistence and degradability

None

n-butyl acetate - CAS: 123-86-4

Biodegradability: Readily biodegradable

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Biodegradability: Readily biodegradable

dibutyltin dilaurate - CAS: 77-58-7

Biodegradability: Non-readily biodegradable

12.3. Bioaccumulative potential

n-butyl acetate - CAS: 123-86-4

Test: BCF - Bioconcentrantion factor 15.3

Test: Kow - Partition coefficient 2.3 - Notes: n-ottanolo/acqua

dibutyltin dilaurate - CAS: 77-58-7

Test: BCF - Bioconcentrantion factor 2.91 - Notes: Specie: Pesce

12.4. Mobility in soil

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Mobility in soil: Mobile

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 >= 0.1%

12.7. Other adverse effects

None

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recycle/Recover if possible. Send to authorized disposal or recovery facilities. Operate according to local and national regulations.

PRODUCT DISPOSAL: If recycling or reuse is not possible, send for recovery or disposal in authorized facilities. Comply with all local and national regulations.

DISPOSAL OF PACKAGING: Dispose the contaminated packaging in the same way as the product. Send empty and cleaned packaging for disposal or recovery in compliance with applicable local and national regulations.

DISPOSAL INFORMATION: Do not pour directly or indirectly into bodies of water, groundwater, soil or public treatment plant.

14. TRANSPORT INFORMATION

14.1. UN number or ID number

ADR-UN Number: 1263
IATA-UN Number: 1263
IMDG-UN Number: 1263

14.2. UN proper shipping name

ADR-Shipping Name: PAINT RELATED MATERIAL
IATA-Shipping Name: PAINT RELATED MATERIAL
IMDG-Shipping Name: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR-Class: 3
ADR - Hazard identification number: 30
IATA-Class: 3
IATA-Label: 3
IMDG-Class: 3

14.4. Packing group

ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III

14.5. Environmental hazards

ADR-Enviromental Pollutant: No
IMDG-Marine pollutant: No
IMDG-EmS: F-E , S-E

14.6. Special precautions for user

ADR-Subsidiary hazards: -
ADR-S.P.: 163 367 650
ADR-Transport category (Tunnel restriction code): 3 (D/E)
IATA-Passenger Aircraft: 355
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 366
IATA-S.P.: A3 A72 A192
IATA-ERG: 3L
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: -

14.7. Maritime transport in bulk according to IMO instruments

N.A.

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)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 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:
Restriction 3
Restriction 40

Restrictions related to the substances contained:
Restriction 30
Restriction 75

Volatile Organic compounds - VOCs = 99.71 %
Volatile Organic compounds - VOCs = 894.10 g/l
Volatile CMR substances = 0.00 %
Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %
Organic Carbon - C = 0.6

Where applicable, refer to the following regulatory provisions :

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors
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
Product belongs to category: P5c

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:
n-butyl acetate

16. OTHER INFORMATION

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Muta. 2	3.5/2	Germ cell mutagenicity, Category 2
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
STOT SE 1	3.8/1	Specific target organ toxicity - single exposure, Category 1
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 1	3.9/1	Specific target organ toxicity - repeated exposure, Category 1
Aquatic Acute 1	Aquatic Acute 1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878.
Paragraphs modified from the previous revision:

SECTION 2: Hazards identification
SECTION 7: Handling and storage
SECTION 8: Exposure controls/personal protection
SECTION 11: Toxicological information
SECTION 15: Regulatory information
SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Flam. Liq. 3, H226	On basis of test data
STOT SE 3, H336	Calculation method
Aquatic Chronic 3, H412	Calculation method

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: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
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.
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.

HEALTH AND SAFETY DATA SHEET
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue Date: 15/02/2024
Version: 13

EXPOSURE SCENARIO, 24/10/2019

Substance Identity	
Chemical name	acetato di n-butile
CAS No.	123-86-4
INDEX No.	607-025-00-1
EINECS No.	204-658-1

Table of contents

1. ES 1	**Use at industrial site; Coatings and paints, thinners, paint removers (PC9a)**
1.1 TITLE SECTION	
Exposure Scenario name	Industrial manufacture of coatings and inks
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Environment Contributing Scenario	
CS1 Solvent-based process	ERC4
Worker Contributing Scenario	
CS2 Spraying	PROC7
CS3 Rolling, Brushing	PROC10
CS4 Rolling, Brushing	PROC10
CS5 Dipping, immersion and pouring	PROC13
1.2 Conditions of use affecting exposure	
1.2. 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)
Amount used, frequency and duration of use (or from service life)	

Amounts used: **Application rate** = 5000 t(onnes)/year **Maximum allowable site tonnage (MSafe):** 1080.7 kg/day **Critical compartment for Msafe:** soil **Emission days:** 225 days per year	
Technical and organisational conditions and measures	
Control measures to prevent releases Waste gas treatment by thermal oxidation	
Conditions and measures related to sewage treatment plant	
STP type: Municipal Sewage Treatment Plant **STP effluent (m^3/day):** 2000	
Other conditions affecting environmental exposure	
Local marine water dilution factor: 100 **Local freshwater dilution factor:** 10 **Receiving surface water flow:** 18000 m^3/day	
1.2. CS2: Worker Contributing Scenario: Spraying (PROC7)	
Process Categories	Industrial spraying (PROC7)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures Ensure that direct skin contact is avoided. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Ensure regular inspection, cleaning and maintenance of equipment and machines.	

Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection	
Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Wear an impervious suit.	
Other conditions affecting worker exposure	
Indoor use Industrial use **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: Ensure segregation of worker from the source. Ensure that a spraying booth is used.	
1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)	
Process Categories	Roller application or brushing (PROC10)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %.	
Technical and organisational conditions and measures	
Technical and organisational measures Ensure that direct skin contact is avoided. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Ensure regular inspection, cleaning and maintenance of equipment and machines.	
Conditions and measures related to personal protection, hygiene and health evaluation	

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Wear an impervious suit.	

Other conditions affecting worker exposure

Indoor use
Industrial use
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:
Ensure segregation of worker from the source. Ensure that a spraying booth is used.

1.2. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Process Categories	Roller application or brushing (PROC10)

Product (article) characteristics

Physical form of product: Liquid
Vapour pressure: = 1120 Pa
Concentration of substance in product: Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

Duration: = 480 min
Frequency: = 5 days per week

Technical and organisational conditions and measures

Technical and organisational measures

Local exhaust ventilation	Inhalation - minimum efficiency of: = 90 %
Ensure operatives are trained to minimise exposures.	

Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection	
Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Other conditions affecting worker exposure	
Indoor use Industrial use **Temperature:** Covers use at ambient temperatures.	
1.2. CS5: 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:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures	
Local exhaust ventilation	Inhalation - minimum efficiency of: = 90 %
Ensure operatives are trained to minimise exposures.	
Conditions and measures related to personal protection, hygiene and health evaluation	

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %

Other conditions affecting worker exposure

Indoor use
Industrial use
Temperature: Covers use at ambient temperatures.

1.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0.8 %	N/A
Water	2 %	N/A
soil	0 %	N/A

Protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
soil	N/A	EASY TRA v4.1	= 0.925355

1.3. CS2: Worker Contributing Scenario: Spraying (PROC7)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 4.2857 mg/kg bw/day	EASY TRA v4.1	= 0.38961
inhalative, systemic, long-term	= 0.0001 mg/m^3	EASY TRA v4.1	= 1E-06

1.3. CS3: Worker Contributing Scenario: Rolling, Brushing (PROC10

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 4.2857 mg/kg bw/day	EASY TRA v4.1	= 0.38961
inhalative, systemic, long-term	= 0.0001 mg/m^3	EASY TRA v4.1	= 1E-06

1.3. CS4: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 2.7429 mg/kg bw/day	EASY TRA v4.1	= 0.249351
inhalative, systemic, long-term	= 24.1996 mg/m^3	EASY TRA v4.1	= 0.080665

1.3. CS5: 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	= 1.3714 mg/kg bw/day	EASY TRA v4.1	= 0.124675
inhalative, systemic, long-term	= 24.1996 mg/m^3	EASY TRA v4.1	= 0.080665

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	**Widespread use by professional workers; Coatings and paints, thinners, paint removers (PC9a)**
2.1 TITLE SECTION	
Exposure Scenario name	Professional application of coatings and inks
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Environment Contributing Scenario	
S1 Solvent-based process	ERC8a
Worker Contributing Scenario	
CS2 Rolling, Brushing	PROC10
CS3 Spraying	PROC11
CS4 Spraying	PROC11
CS5 Spraying	PROC11
CS6 Dipping, immersion and pouring	PROC13
2.2 Conditions of use affecting exposure	
2.2. 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)
Amount used, frequency and duration of use (or from service life)	
Amounts used: **Application rate** = 2000 t(onnes)/year **Maximum allowable site tonnage (MSafe):** 1934.6 kg/day **Critical compartment for Msafe:** freshwater sediment **Emission days:** 225 days per year	

Conditions and measures related to sewage treatment plant	
STP type: Municipal Sewage Treatment Plant **STP effluent (m^3/day):** 2000	
Other conditions affecting environmental exposure	
Local marine water dilution factor: 100 **Local freshwater dilution factor:** 10 **Receiving surface water flow:** 18000 m^3/day	
2.2. CS2: Worker Contributing Scenario: Rolling, Brushing (PROC10)	
Process Categories	Roller application or brushing (PROC10)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures	

Ensure operatives are trained to minimise exposures.	
Provide a good standard of controlled ventilation (5 to 10 air changes per hour).	Inhalation - minimum efficiency of: = 70 %

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

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %

Other conditions affecting worker exposure	
Indoor use Professional use **Temperature:** Covers use at ambient temperatures.	
Other conditions affecting environmental exposure	
Local marine water dilution factor: 100 **Local freshwater dilution factor:** 10 **Receiving surface water flow:** 18000 m^3/day	
2.2. CS3: Worker Contributing Scenario: Spraying (PROC11)	
Process Categories	Non industrial spraying (PROC11)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure that direct skin contact is avoided. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Ensure segregation of worker from the source. Ensure that a spraying booth is used.	

Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection	
Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Wear an impervious suit.	
Other conditions affecting worker exposure	
Indoor use Professional use **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: Ensure that a spraying booth is used.	
2.2. CS4: Worker Contributing Scenario: Spraying (PROC11)	
Process Categories	Non industrial spraying (PROC11)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure**: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 45 %	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure that direct skin contact is avoided. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Open doors and windows. Local exhaust ventilation	

Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection	
Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Wear an impervious suit.	
Other conditions affecting worker exposure	
Indoor use Professional use **Temperature**: Covers use at ambient temperatures.	
2.2. CS5: Worker Contributing Scenario: Spraying (PROC11)	
Process Categories	Non industrial spraying (PROC11)
Product (article) characteristics	
Physical form of product: Liquid **Vapour pressure**: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 45 %	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational conditions and measures	
Technical and organisational measures Ensure operatives are trained to minimise exposures. Ensure regular inspection, cleaning and maintenance of equipment and machines. Ensure that direct skin contact is avoided. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Open doors and windows.	

Conditions and measures related to personal protection, hygiene and health evaluation	
Personal protection	
Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %
Wear an impervious suit.	
Wear suitable respiratory protection.	
Other conditions affecting worker exposure	
Indoor use Professional use **Temperature**: Covers use at ambient temperatures.	
2.2. CS6: 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:** = 1120 Pa **Concentration of substance in product:** Covers percentage substance in the product up to 100 %.	
Amount used, frequency and duration of use/exposure	
Duration: = 480 min **Frequency:** = 5 days per week	
Technical and organisational measures	
Ensure operatives are trained to minimise exposures.	
Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed.	
Provide a good standard of controlled ventilation (5 to 10 air changes per hour).	Inhalation - minimum efficiency of: = 70 %

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

Personal protection

Wear suitable gloves tested to EN374.	Dermal - minimum efficiency of: = 90 %

Other conditions affecting worker exposure

Indoor use
Professional use
Temperature: Covers use at ambient temperatures.

2.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	99 %	N/A
Water	1 %	N/A
soil	0 %	N/A

Protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater sediment	N/A	EASY TRA v4.1	= 0.012923

2.3. CS2: Worker Contributing Scenario: Rolling, Brushing (PROC10)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 2.7429 mg/kg bw/day	EASY TRA v4.1	= 0.249351
inhalative, systemic, long-term	= 145.1979 mg/m^3	EASY TRA v4.1	= 0.483993

2.3. CS3: Worker Contributing Scenario: Spraying (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 10.7143 mg/kg bw/day	EASY TRA v4.1	= 0.974026
inhalative, systemic, long-term	= 0.0001 mg/m³	EASY TRA v4.1	= 1E-06

2.3. CS4: Worker Contributing Scenario: Spraying (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 4.8214 mg/kg bw/day	EASY TRA v4.1	= 0.438312
inhalative, systemic, long-term	= 153 mg/m³	EASY TRA v4.1	= 0.51

2.3. CS5: Worker Contributing Scenario: Spraying (PROC11)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, long-term	= 4.8214 mg/kg bw/day	EASY TRA v4.1	= 0.438312
inhalative, systemic, long-term	= 116 mg/m³	EASY TRA v4.1	= 0.386667

2.3. CS6: 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	= 1.3714 mg/kg bw/day	EASY TRA v4.1	= 0.124675
inhalative, systemic, long-term	= 145.1979 mg/m³	EASY TRA v4.1	= 0.483993

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 Consumer use; Coatings and paints, thinners, paint removers (PC9a)	
3.1 TITLE SECTION	
Exposure Scenario name	Consumer application of coatings
Date - Version	01/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Environment Contributing Scenario	
CS1 Solvent-based process	ERC8a
Consumer Contributing Scenario	
CS2 Consumer	PC9a
CS3 Consumer	PC9a
CS4 Consumer	PC9a
CS5 Consumer	PC9a
CS6 Consumer	PC9a
CS7 Consumer	PC9a
CS8 Consumer	PC9a
CS9 Consumer	PC9a
CS10 Consumer	PC9a
CS11 Consumer	PC9a

3.2 Conditions of use affecting exposure	
3.2. 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)
Amount used, frequency and duration of use (or from service life)	
Amounts used: **Application rate =** 1000 t(onnes)/year **Maximum allowable site tonnage (MSafe):** 111.9 kg/day **Critical compartment for Msafe:** freshwater sediment **Emission days:** 365 days per year	
Other conditions affecting environmental exposure	
Local marine water dilution factor: 100 **Local freshwater dilution factor:** 10 **Receiving surface water flow:** 18000 m^3/day	
3.2. CS2: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Coatings and paints, thinners, paint removers (PC9a)	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 2 %	
Amount used, frequency and duration of use/exposure	
Amounts used: **Amount per use =** 1E-05 mg	
Other conditions affecting consumers exposure	
Temperature: Covers use at ambient temperatures.	

3.2. CS3: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 1.3 %	
Amount used, frequency and duration of use/exposure	
Amounts used: **Amount per use** = 0.0005 mg **Duration: Exposure duration** = 60 min **Duration: Application interval** = 60 min	
Other conditions affecting consumers exposure	
Room size: Release area = 2 m^2 **Temperature**: Covers use at ambient temperatures.	
3.2. CS4: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 1.3 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 3E-05 kg/min **Duration: Exposure duration** = 132 min **Duration: Application interval** = 120 min	
Other conditions affecting consumers exposure	
Room size: Release area = 10 m^2 **Temperature:** Covers use at ambient temperatures.	

3.2. CS5: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 18 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 0.0001 kg/min **Duration: Spray duration** = 900 sec **Duration: Exposure duration** = 20 min	
Information and behavioural advice for consumers	
Information and behavioural advice for consumers: Ensure spraying away from persons.	
Other conditions affecting consumers exposure	
Room size: = 34 m^3 **Temperature:** Covers use at ambient temperatures. **Ventilation rate:** Open doors and windows. = 1.5	
3.2. CS6: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 1.3999 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 3E-05 kg/min **Duration: Exposure duration** = 132 min **Duration: Application interval** = 120 min	
Other conditions affecting consumers exposure	

Room size: Release area = 10 m^2 **Temperature:** Covers use at ambient temperatures.	
3.2. CS7: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 17 %	
Amount used, frequency and duration of use/exposure	
Amounts used: Amount per use = 0.0001 kg **Duration: Exposure duration** = 180 min **Duration: Application interval** = 120 min	
Other conditions affecting consumers exposure	
Room size: Release area = 0.025 m^2 **Temperature:** Covers use at ambient temperatures.	
3.2. CS8: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 1.1 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 3E-05 kg/min **Duration: Exposure duration** = 132 min **Duration: Application interval** = 120 min	
Other conditions affecting consumers exposure	
Room size: Release area = 10 m^2 **Temperature:** Covers use at ambient temperatures.	

3.2. CS9: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 2 %	
Amount used, frequency and duration of use/exposure	
Amounts used: **Amount per use** = 0.019 kg	
Other conditions affecting consumers exposure	
Temperature: Covers use at ambient temperatures.	
3.2. CS10: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 2 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 3E-05 kg/min **Duration: Exposure duration** = 240 min **Duration: Application interval** = 240 min	
Other conditions affecting consumers exposure	
Room size: Release area = 5 m^2 **Temperature:** Covers use at ambient temperatures.	
3.2. CS11: Consumer Contributing Scenario: Consumer (PC9a)	

3.2. CS9: Consumer Contributing Scenario: Consumer (PC9a)	
Product Categories	Coatings and paints, thinners, paint removers (PC9a)
Product (article) characteristics	
Vapour pressure: = 1120 Pa **Concentration of substance in product:** Covers concentrations up to 0.5999 %	
Amount used, frequency and duration of use/exposure	
Amounts used: = 3E-05 kg/min **Duration: Exposure duration** = 132 min **Duration: Application interval** = 120 min	
Other conditions affecting consumers exposure	
Room size: Release area = 15 m^2 **Temperature:** Covers use at ambient temperatures.	
3.3 Exposure estimation and reference to its source	
3.3. CS1: Environment Contributing Scenario: Solvent-based process (ERC8a)	

Release route	Release rate	Release estimation method
Air	99 %	N/A
Water	1 %	N/A
Soil	0 %	N/A

Protection target	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
freshwater sediment	N/A	EASY TRA v4.1	= 0.004497

3.2. CS2: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.0031 mg/kg bw/day	EASY TRA v4.1	= 0.000513

Additional information on exposure estimation:
Dermal model: instant application

3.2. CS3: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.1 mg/kg bw/day	EASY TRA v4.1	= 0.016667
inhalative, systemic, short-term	= 268.3666 mg/m³	EASY TRA v4.1	= 0.894555

Additional information on exposure estimation:
Dermal model: instant application
Inhalation model: exposure to vapour - evaporation

3.2. CS4: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.72 mg/kg bw/day	EASY TRA v4.1	= 0.12
inhalative, systemic, short-term	= 237.9923 mg/m³	EASY TRA v4.1	= 237.9923 mg/m³

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to vapour - evaporation

3.2. CS5: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 4.1538 mg/kg bw/day	EASY TRA v4.1	= 4.1538 mg/kg bw/day
inhalative, systemic, short-term	= 67.715 mg/m³	EASY TRA v4.1	= 0.225717

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to spray/dust

3.2. CS6: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.7754 mg/kg bw/day	EASY TRA v4.1	= 0.129231
inhalative, systemic, short-term	= 240.316 mg/m³	EASY TRA v4.1	= 0.801053

Additional information on exposure estimation:
Dermal model: instant application
Inhalation model: exposure to vapour - evaporation

3.2. CS7: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.2429 mg/kg bw/day	EASY TRA v4.1	= 0.040476
inhalative, systemic, short-term	= 273.8832 mg/m³	EASY TRA v4.1	= 0.912944

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to vapour - evaporation

3.2. CS8: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.6092 mg/kg bw/day	EASY TRA v4.1	= 0.101538
inhalative, systemic, short-term	= 261.7915 mg/m³	EASY TRA v4.1	= 0.872638

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to vapour - evaporation

3.2. CS9: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 5.8462 mg/kg bw/day	EASY TRA v4.1	= 0.974359

Additional information on exposure estimation:
Dermal model: instant application

3.2. CS10: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 2.2154 mg/kg bw/day	EASY TRA v4.1	= 0.369231
inhalative, systemic, short-term	= 185.2461 mg/m³	EASY TRA v4.1	= 0.617487

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to vapour - evaporation

3.2. CS11: Consumer Contributing Scenario: Consumer (PC9a)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
dermal, systemic, short-term	= 0.3323 mg/kg bw/day	EASY TRA v4.1	= 0.055385
inhalative, systemic, short-term	= 280.4306 mg/m³	EASY TRA v4.1	= 0.934769

Additional information on exposure estimation:
Dermal model: constant application rate
Inhalation model: exposure to vapour - evaporation

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.