according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

Print date: 27.12.2022 Revision date: 10.12.2022 EN Version: 9.0 Issue date: 10.12.2022 Page 1 / 16

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

1.1. product identifiers

Article No. (manufacturer/supplier) 665

Trade name/designation Nitroverdünner N2

UFI: E23V-A51N-7997-5P4Q

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

Relevant identified uses:

Coating material to protecting surfaces

1.3. Details of the supplier of the safety data sheet

supplier (manufacturer/importer/downstream user/distributor)

Vismara Unternehmungen CH-5000 Aarau www.farbladen.ch

Department responsible for information:

laboratory Manager

E-mail (competent person) info@knuchel.ch

1.4. Emergency telephone number

Emergency telephone number 145 (+41 (0)44 251 51 51)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 2 / H225 Flammable liquids Highly flammable liquid and vapour.

Eye Irrit. 2 / H319 Serious eye damage/eye irritation Causes serious eye irritation.

STOT SE 3 / H336 STOT-single exposure May cause drowsiness or dizziness.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms





Danger

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P261 Avoid breathing vapours.

P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves and eye/face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P337 + P313 If eye irritation persists: Get medical advice/attention.

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

Print date: 27.12.2022 Revision date: 10.12.2022 EN Version: 9.0 Issue date: 10.12.2022 Page 2 / 16

P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish. P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Keep locked up.

P501 Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

Ethyl acetate

Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Description Solvents/Thinner

Classification according to Regulation (EC) No 1272/2008 [CLP]

EC No. CAS No. Index No.	REACH No. Designation classification // Remark	weight-%
205-500-4 141-78-6 607-022-00-5	01-2119475103-46 Ethyl acetate Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336 / EUH066	25 - 40
200-661-7 67-63-0 603-117-00-0	01-2119457558-25 propan-2-ol Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	25 - 40
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336 / EUH066	15 - 25
203-539-1 107-98-2 603-064-00-3	01-2119457435-35 1-methoxy-2-propanol Flam. Liq. 3 H226 / STOT SE 3 H336	15 - 25
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	5 - 10
202-849-4 100-41-4 601-023-00-4	01-2119489370-35 ethylbenzene Flam. Liq. 2 H225 / Acute Tox. 4 H332 / STOT RE 2 H373 / Asp. Tox. 1 H304	1 - 5

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

27.12.2022 Revision date: 10.12.2022 Print date: Page 3 / 16 Version: Issue date: 10.12.2022

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Unsuitable extinguishing media

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

Environmental precautions 6.2.

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

Methods and material for containment and cleaning up 6.3.

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

Print date: 27.12.2022 Revision date: 10.12.2022 EN Version: 9.0 Revision date: 10.12.2022 Page 4 / 16

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

WEL, TWA: 734 mg/m3; 200 ppm WEL, STEL: 1468 mg/m3; 400 ppm

propan-2-ol

Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

WEL, TWA: 999 mg/m3; 400 ppm WEL, STEL: 1250 mg/m3; 500 ppm

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

WEL, TWA: 375 mg/m3; 100 ppm WEL, STEL: 560 mg/m3; 150 ppm

Remark: (may be absorbed through the skin)

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

WEL, TWA: 220 mg/m3; 50 ppm WEL, STEL: 441 mg/m3; 100 ppm

Remark: (may be absorbed through the skin)

BMGV, TWA: 650 mmol/mol creatinine

Remark: methyl hippuric acid; urine; end of exposure or end of shift

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

WEL, TWA: 441 mg/m3; 100 ppm WEL, STEL: 552 mg/m3; 125 ppm

Remark: (may be absorbed through the skin)

Additional information

TWA: Long-term occupational exposure limit value STEL: short-term occupational exposure limit value

Ceiling: peak limitation

DNEL:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7 DNEL long-term dermal (systemic), Workers: 212 mg/kg bw/day

DNEL acute inhalative (local), Workers: 442 mg/m³ DNEL acute inhalative (systemic), Workers: 442 mg/m³

DNEL long-term inhalative (local), Workers:

DNEL long-term inhalative (systemic), Workers: 221 mg/m³ DNEL long-term oral (repeated), Consumer: 12,5 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 125 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 260 mg/m³ DNEL acute inhalative (systemic), Consumer: 260 mg/m³ DNEL long-term inhalative (local), Consumer: 65,3 mg/m³

DNEL long-term inhalative (systemic), Consumer: 65,3 mg/m³

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4 DNEL long-term dermal (systemic), Workers: 180 mg/kg bw/day

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2 27.12.2022 Revision date: 10.12.2022 Print date: Version: Issue date: 10.12.2022

> DNEL long-term inhalative (systemic), Workers: 77 mg/m³ DNEL long-term oral (repeated), Consumer: 1,6 mg/kg bw/day DNEL long-term inhalative (systemic), Consumer: 15 mg/m³

FN Page 5 / 16

Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

DNEL long-term dermal (systemic), Workers: 63 mg/kg DNEL acute inhalative (local), Workers: 1468 mg/m³ DNEL acute inhalative (systemic), Workers: 1468 mg/m³ DNEL long-term inhalative (local), Workers: 734 mg/m³ DNEL long-term inhalative (systemic), Workers: 734 mg/m³ DNEL long-term oral (repeated), Consumer: 4,5 mg/kg

DNEL long-term dermal (systemic), Consumer: 37 mg/kg bw/day

DNEL acute inhalative (local), Consumer: 734 mg/m³ DNEL acute inhalative (systemic), Consumer: 734 mg/m³ DNEL long-term inhalative (local), Consumer: 367 mg/m³ DNEL long-term inhalative (systemic), Consumer: 367 mg/m³

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

DNEL long-term dermal (systemic), Workers: 183 mg/kg bw/day

DNEL acute inhalative (local), Workers: 553,5 mg/m³ DNEL long-term inhalative (systemic), Workers: 369 mg/m³ DNEL long-term oral (repeated), Consumer: 3,3 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 18,1 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 43,9 mg/m³

n-butvl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

DNEL short-term oral (acute), Workers:

DNEL long-term inhalative (systemic), Workers: 480 mg/m³ DNEL long-term inhalative (systemic), Consumer: 102,34 mg/m³

propan-2-ol

Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

DNEL acute dermal, short-term (systemic), Workers: 888 mg/kg bw/day

DNEL long-term inhalative (systemic), Workers: 500 mg/m³ DNEL long-term oral (repeated), Consumer: 26 mg/kg bw/day DNEL long-term dermal (systemic), Consumer: 319 mg/kg bw/day DNEL long-term inhalative (systemic), Consumer: 89 mg/m³

PNEC:

Xylene

Index No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

PNEC aquatic, freshwater: 0,327 mg/L PNEC aquatic, marine water: 0,327 mg/L PNEC sediment, freshwater: 12,46 mg/kg PNEC sediment, marine water: 12,46 mg/kg PNEC sewage treatment plant (STP): 6,58 mg/L soil: 2,31 mg/kg

ethylbenzene

Index No. 601-023-00-4 / EC No. 202-849-4 / CAS No. 100-41-4

PNEC aquatic, freshwater: 0,1 mg/L PNEC aquatic, marine water: 0,01 mg/L PNEC sediment, freshwater: 13,7 mg/kg PNEC sediment, marine water: 1,37 mg/kg

PNEC, soil: 2,68 mg/kg

PNEC sewage treatment plant (STP): 9,6 mg/L

Ethyl acetate

Index No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

PNEC aquatic, freshwater: 0,24 mg/L PNEC aquatic, marine water: 0,024 mg/L PNEC aquatic, intermittent release: 1,65 mg/L PNEC sediment, freshwater: 1,15 mg/kg

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

665 Nitroverdünner N2 Article No.:

27.12.2022 Revision date: 10.12.2022 Print date: FN Page 6 / 16 Version: Issue date: 10.12.2022

PNEC sediment, marine water: 0,115 mg/kg

PNEC, soil: 0,148 mg/kg

PNEC sewage treatment plant (STP): 650 mg/L PNEC Secondary Poisoning: 200 mg/kg food

1-methoxy-2-propanol

Index No. 603-064-00-3 / EC No. 203-539-1 / CAS No. 107-98-2

PNEC aquatic, freshwater: 10 mg/L PNEC aquatic, marine water: 1 mg/L

PNEC aquatic, intermittent release: 100 mg/L PNEC sediment, freshwater: 52.3 mg/kg PNEC sediment, marine water: 5,2 mg/kg

PNEC. soil: 4.59 ma/ka

PNEC sewage treatment plant (STP): 100 mg/L

n-butyl acetate

Index No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

PNEC aquatic, freshwater: 0,18 mg/L PNEC aquatic, marine water: 0,018 mg/L PNEC aquatic, intermittent release: 0.36 mg/L

PNEC sediment, freshwater: 0,981 mg/kg Sediment dry weight PNEC sediment, marine water: 0,0981 mg/kg Sediment dry weight

PNEC, soil: 0,0903 mg/kg Sediment dry weight PNEC sewage treatment plant (STP): 35,6 mg/L

propan-2-ol

Index No. 603-117-00-0 / EC No. 200-661-7 / CAS No. 67-63-0

PNEC aquatic, freshwater: 140.9 mg/L PNEC aquatic, marine water: 140,9 mg/L PNEC aquatic, intermittent release: 140,9 mg/L PNEC sediment, freshwater: 552 mg/kg dw PNEC sediment, marine water: 552 mg/kg dw

PNEC, soil: 28 mg/kg

PNEC sewage treatment plant (STP): 2251 mg/L PNEC Secondary Poisoning: 160 mg/kg food

Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0.4 mm; Breakthrough time: > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Wear closely fitting protective glasses in case of splashes.

Body protection

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2
Print date: 27 12 2022 Pevision date: 10 12

 Print date:
 27.12.2022
 Revision date: 10.12.2022
 EN

 Version:
 9.0
 Issue date: 10.12.2022
 Page 7 / 16

Colour: refer to label
Odour: characteristic
Odour threshold: not applicable
Melting point/freezing point: not applicable

Initial boiling point and boiling range: 76 °C

Source: Ethyl acetate

Flammability: Highly flammable liquid and vapour.

Lower and upper explosion limit:

Lower explosion limit: 1.76 Vol-% Upper explosion limit: 13.7 Vol-%

Source: 1-methoxy-2-propanol

Flash point: 4 °C

Method: DIN 53213

Auto-ignition temperature: 287 °C

Source: 1-methoxy-2-propanol

Decomposition temperature: not applicable pH at 20 °C: not applicable Cinematic viscosity (40°C): < 20 mm²/s

Viscosity at 20 °C: 10 - 12 sec DIN 4 mm

Solubility(ies):

Water solubility at 20 °C: partially soluble Partition coefficient: n-octanol/water: see section 12

Vapour pressure at 20 °C: 97 mbar

Source: Ethyl acetate

Density and/or relative density:

Density at 20 °C: 0.86 g/cm³
Relative vapour density: not applicable particle characteristics: not applicable

9.2. Other information

Solid content: 0 weight-%

solvent content:

Organic solvents: 100 weight-% Water: 0 weight-%

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

not applicable

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

 Print date:
 27.12.2022
 Revision date: 10.12.2022
 EN

 Version:
 9.0
 Issue date: 10.12.2022
 Page 8 / 16

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

Acute toxicity

Xylene

oral, LD50, Rat, male: 5,523 mg/kg

Method: EU Test B.1

inhalative (vapours), LC50, Rat, male: 6700 ppm (4 h)

ethylbenzene

oral, LD50, Rat: 3,5 mg/kg dermal, LD50, Rabbit: 15,4 mg/kg

Ethyl acetate

oral, LD50, Rat: 5620 mg/kg

dermal, LD50, Rabbit: > 20000 mg/kg

oral, LD50, Rabbit: 4934 Method: OECD 401

inhalative (vapours), LC0, Rat: 29,3 (4 h)

inhalative (vapours), LCLo, Rat: > 6000 ppm (6 h) inhalative (vapours), LD50, Rabbit, male: > 2000 mg/kg

1-methoxy-2-propanol

oral, LD50, Rat: 4,016 mg/kg

Method: EU Test B.1

Depression of central nervous system

dermal, LD50, Rat: > 2 mg/kg

Method: EU Test B.3

inhalative (vapours), LC50, Rat: 36,67 mg/L (4 h)

Method: OECD 403

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg

Method: OECD 423

dermal, LD50, Rabbit: 14112 mg/kg

Method: OECD 402

inhalative (dust and mist), LC50, Rat: 23,4 mg/L (4 h)

Method: OECD 403

propan-2-ol

oral, LD50, Rat: 5840 mg/kg

Method: OECD 401

dermal, LD50, Rabbit: 13900 mg/kg

Method: OECD 402

inhalative (vapours), LC50, Rat: > 25 mg/L (6 h)

Method: OECD 403

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes serious eye irritation.

ethylbenzene

Skin, Rabbit (24 h)

Causes mild skin irritation.

eyes, Rabbit

Causes slight eye irritation

Ethyl acetate

Skin (4 h)

No skin irritation (rabbit). Degreases the skin and makes it dry and rough. Prolonged or repeated skin contact can lead to dermatitis.

eyes

Moderate eye irritation (rabbit).

1-methoxy-2-propanol

Skin (4 h)

Method: EU Test B.4

Not to be classified as skin etching/irritant.

eyes

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Nitroverdünner N2 Article No.: 665

Revision date: 10.12.2022 27.12.2022 Print date: FN Page 9 / 16 Version: Issue date: 10.12.2022

Method: EU Test B.5

Not to be classified as severe eye damage or eye irritation.

n-butyl acetate Skin, Rabbit (4 h) Method: OECD 404 No skin irritation

eves

Method: OECD 405 No eye irritation

propan-2-ol Skin (4 h)

Method: OECD 404

Degreases the skin and makes it dry and rough. ; Prolonged or repeated contact may cause dermatitis.

eyes

Method: OECD 405

Splashes in the eyes can cause severe pain. Steam is irritant.

Respiratory or skin sensitisation

Ethyl acetate

Skin, Guinea pig: ; Evaluation not sensitising

Method: OECD 406 Maximization test 1-methoxy-2-propanol

Skin, Guinea pig: ; Evaluation Not to be classified as skin sensitising.

Method: Directive 67/548/EEC, Annex V, B.6.

Respiratory system, Guinea pig: ; Evaluation not sensitising.

Method: Directive 67/548/EEC, Annex V, B.6.

n-butyl acetate

Skin, Guinea pig: ; Evaluation not sensitising

Method: OECD 406

Mouse mouse ear swelling test (MEST)

propan-2-ol

Skin, Guinea pig: ; Evaluation not sensitising

Method: OECD 406

Buhler test

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

ethylbenzene

Germ cell mutagenicity; Evaluation negative

Hamster; Mouse; ovaries

Carcinogenicity; Evaluation Carc. Cat. 2

Method: Group II B (IARC): Possible carcinogenic to humans (ethylbenzene)

human

Ethyl acetate

Germ cell mutagenicity; Evaluation In vitro tests showed no mutagenic effects. Carcinogenicity; Evaluation Didn't show any carcinogenic effects in animal tests.

Reproductive toxicity; Evaluation No reproductive toxicity

Genotoxicity in vitro; Evaluation negative

(Chromosome aberration test in vitro; CHO (Chinese hamster ovaries) cells; with and without metabolic activation) (OECD

Test Guideline 473).; (Back mutation test on bacteria; Salmonella typhimurium) (OECD test guideline 471).

Genotoxicity in vivo; Evaluation negative

Method: OECD 474

(Chromosome aberration test in vivo; Chinese hamster, male and female) (Oral).

1-methoxy-2-propanol

Germ cell mutagenicity; Evaluation Not to be classified as germ cell mutagen (mutagen).

Carcinogenicity; Evaluation Does not qualify as a carcinogen.

Method: OECD 453

Reproductive toxicity; Evaluation Does not qualify as a carcinogen.

Method: OECD 416

The toxic effect on reproduction was only demonstrated in animal experiments after the administration of very high amounts

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

 Print date:
 27.12.2022
 Revision date: 10.12.2022
 EN

 Version:
 9.0
 Issue date: 10.12.2022
 Page 10 / 16

of substances.

Lactation

No data available

teratogenicity; Evaluation No effect on fertility in animal studies.

In animal experiments, the substance showed a fruit-damaging effect in high doses, which were toxic for the mother

animals.

n-butyl acetate

Germ cell mutagenicity; Evaluation Ames test negative.

propan-2-ol

Germ cell mutagenicity; Evaluation In vitro tests showed no mutagenic effects.

Carcinogenicity: Evaluation Based on available data, the classification criteria are not met.

Reproductive toxicity; Evaluation In vitro tests showed no mutagenic effects.

Method: NOAEL (Parents)

853 mg/kg body weight/day (One-generation reproductive toxicity study; rat, Wistar, male and female)(Oral)(OECD Test

Guideline 415)No negative effects.; 500 mg/kg body weight/day (Two-generation reproductive toxicity test; rat,

Sprague-Dawley, male and female)(Oral)(OECD Test Guideline 416)No negative effects.

teratogenicity; Evaluation In vitro tests showed no mutagenic effects.

Genotoxicity in vitro; Evaluation negative

(Back mutation test on bacteria; Salmonella typhimurium; with and without metabolic activation) (OECD test guideline 471) negative (in vitro gene mutation test on mammalian cells; CHO (Chinese hamster ovaries) cells; with and without metabolic activation) (OECD test guideline 476)

Genotoxicity in vivo; Evaluation negative

Method: OECD 474

(In vivo microkernel test; mouse, CD1) (intraperitoneal;)

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

Xylene

Specific target organ toxicity (repeated exposure)

Liver and kidney damage; central nervous system

Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Liver and kidney damage; central nervous system; hearing organs

ethylbenzene

Repeated dose toxicity, Rat: 75 mg/kg

Method OECD 407 RTECS-no.:; DA0700000

Depression of central nervous system movement disorders; headache; Vomiting

Ethyl acetate

Specific target organ toxicity (single exposure)

Inhalation; central nervous system; May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

No data available

Repeated dose toxicity: 900 mg/kg

Method NOAEL

Repeated dose toxicity, Rat: 3600 mg/kg (92 d)

Method LOAEL

oral

Repeated dose toxicity, Rat: 350 ppm (94 d)

Method NOEC

inhalative (vapours); 5 days/week

Repeated dose toxicity, Rat: 350 ppm (94 d)

Method LOEC:

inhalative (vapours); 5 days/week

1-methoxy-2-propanol

Specific target organ toxicity (single exposure)

Inhalation; central nervous system; May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure) Evaluation Not to be classified as specific target organ toxic (repeated exposure).

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Nitroverdünner N2 Article No.: 665

Revision date: 10.12.2022 Print date: 27.12.2022 Page 11 / 16 Version: 9 0 Issue date: 10.12.2022

n-butyl acetate

Specific target organ toxicity (single exposure)

central nervous system; May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

human; Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).; Steam in high concentration leads to unconsciousness.

Specific target organ toxicity (single exposure)

central nervous system; May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

Repeated oral and inhalative exposure studies have shown that effects in target organs in both male rats (kidney) and male and female mice (thyroid gland) cannot be related to humans.

Aspiration hazard

Ethyl acetate

Aspiration hazard

no classification

1-methoxy-2-propanol

Aspiration hazard

Not to be classified as aspirational.

n-butyl acetate

Aspiration hazard; Evaluation No classification for aspiration toxicity

Aspiration hazard; Evaluation Based on available data, the classification criteria are not met.

Danger of aspiration if swallowed - can get into the lungs and damage them.; Aspiration can lead to pulmonary edema and pneumonia.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]

Do not allow to enter into surface water or drains.

12.1. Toxicity

Xvlene

Fish toxicity, LC50, fish: 2,6 mg/L (96 h)

Method: OECD 203

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)

Method: OECD 201

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)

Method: OECD 201

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout) (96 h)

Method: OECD 203

Daphnia toxicity, IC50, Daphnia magna: 1 mg/L (24 h)

Method: OECD 202

Algae toxicity, EC50, Selenastrum capricornutum: 2,2 mg/L (73 h)

Method: OECD 201

Daphnia toxicity, growth test (Eb-Cx) 10%", Daphnia magna: 1,91 mg/L (21 d)

Method: OECD 211

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2
Print date: 27.12.2022 Revision date: 10.12.2022
Version: 9.0 Issue date: 10.12.2022

Bacteria toxicity, NOEC, Activated sludge: 16 mg/L (28 t)

Method: OECD 301 F

ethylbenzene

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 4,2 mg/L (96 h) Daphnia toxicity, EC50, Daphnia magna (Big water flea) 1,8 - 2,4 mg/L (48 h)

Page 12 / 16

Algae toxicity, EC50, Skeletonema costatum: 4,9 mg/L (72 h)

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 7,2 mg/L (48 h)

Shellfish Toxicity, LC50, Mysidopsis bahia: > 5,2 mg/L (48 h) Toxicity of Microoganisms, EC50, microorganisms: 96 mg/L (24 h)

Ethyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 230 mg/L (96 h)

Flow test; US-EPA

Daphnia toxicity, EC50, Daphnia magna: 610 mg/L (48 h)

Daphnia toxicity, EC50, Daphnia cucullata (Helmet water flea): 165 mg/L (48 h)

Algae toxicity, EC50, Desmodesmus subspicatus: 5600 mg/L (48 h)

Method: DIN 38412

Static test; end; Rate of growth

Algae toxicity, NOEC, Desmodesmus subspicatus: > 100 mg/L (72 h)

Method: OECD 201

Static test; end; Rate of growth

Bacteria toxicity, EC10, Photobacterium phosphoreum: 1650 mg/L (15 min.)

Static test; end; Rate of growth

Bacteria toxicity, EC50, Photobacterium phosphoreum: 5870 mg/L (15 min.)

Static test; end; Rate of growth

1-methoxy-2-propanol

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 1 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna 21,1 - 25,9 mg/L (48 h)

Method: ESR-ES-15

Fish toxicity, LC50, Leuciscus idus (golden orfe) 4,6 - 10 mg/L (96 h)

Method: DIN 38412 / part 15

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1 mg/L (7 d)

Acute aquatic toxicity Evaluation Based on available data, the classification criteria are not met.

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 20,8 mg/L (96 h)

Bacteria toxicity, IC50, Activated sludge: 1 mg/L (3 h)

Method: OECD 209

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)

Algae toxicity, ErC50

Algae toxicity, EC50, Desmodesmus subspicatus: 647,7 mg/L (72 h)

(Growth inhibition)

Algae toxicity, NOEC, Desmodesmus subspicatus: 200 mg/L Bacteria toxicity, IC50, Tetrahymena: 356 mg/L (40 h)

propan-2-ol

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 9640 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, Daphnia magna: 9714 mg/L (24 h)

Method: OECD 202

Static test

Algae toxicity, EC50, Scenedesmus subspicatus: > 100 mg/L (72 h)

Algae toxicity, LOEC:: 1000 mg/L (8 d)

Bacteria toxicity: 100 mg/L ; Evaluation No harmful effect

Long-term Ecotoxicity

Xylene

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,36 mg/L (73 h)

Method: OECD 201

Fish toxicity, NOEC, fish: > 1,3 mg/L (56 d)

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

 Print date:
 27.12.2022
 Revision date: 10.12.2022
 EN

 Version:
 9.0
 Issue date: 10.12.2022
 Page 13 / 16

Daphnia toxicity, NOEC, Daphnia pulex (water flea): 1,17 mg/L (7 d)

Method: US EPA 600/4-91-003

Daphnia toxicity, EL50, Daphnia magna: 2,9 mg/L (21 d)

Method: OECD 211

Algae toxicity, EC50, Pseudokirchneriella subcapitata: 2,2 mg/L (73 h)

Method: OECD 201

Daphnia toxicity, LOEC:, Daphnia magna (Big water flea): 3,16 mg/L (21 d)

Method: OECD 211

Algae toxicity, growth test (Eb-Cx) 10%", Pseudokirchneriella subcapitata: 0,72 mg/L (73 h)

Method: OECD 201

ethylbenzene

Daphnia toxicity, NOEC, Ceriodaphnia dubia (Wasserfloh): 0,96 mg/L (7 d) Daphnia toxicity, LC50. Ceriodaphnia dubia (Wasserfloh): 3.6 mg/L (7 d)

Bacteria toxicity, EC50, Nitrosomonas sp: 96 mg/L (24 h)

Algae toxicity, NOEC, Pseudokirchneriella subcapitata: 3,4 mg/L (96 h) Daphnia toxicity, LOEC:, Ceriodaphnia dubia (Wasserfloh): 1,7 mg/L (7 d)

Ethyl acetate

Fish toxicity, NOEC, Pimephales promelas (fathead minnow): > 9,65 mg/L (32 d)

Method: OECD 211

semistatic

1-methoxy-2-propanol

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 1 mg/L (7 d)

Chronic aquatic toxicity Evaluation Based on available data, the classification criteria are not met.

12.2. Persistence and degradability

Xylene

Persistence and degradability:

Method: Rapid photochemical oxidation in air

Biodegradation: 98 percent (28 d)

Readily biodegradable (according to OECD criteria)

ethylbenzene

Biodegradation, aerobic: 70 - 80 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria)

Ethyl acetate

Persistence and degradability: Evaluation The product evaporates easily from the water surface. Biodegradation: 79 percent (20 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301D

Related to: Biochemical oxygen demand

1-methoxy-2-propanol

Biodegradation: 96 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301E

Persistence and degradability:

No data available

n-butyl acetate

Persistence and degradability: Evaluation No data available

Biodegradation: 83 percent (28 d); Evaluation Readily biodegradable (according to OECD criteria).

Method: OECD 301D

aerobic. propan-2-ol

Persistence and degradability:

Transformation by hydrolysis is not expected to be significant.

Biodegradation: 53 percent; Evaluation Readily biodegradable (according to OECD criteria).

aerobic; domestic waste water; related to: O2 consumption; exposure duration: 5d)(Directive 67/548/EEC, Annex V, C.5.

12.3. Bioaccumulative potential

Xylene

Distribution coefficient n-octanol/water (log KOW): 3,49

ethylbenzene

Distribution coefficient n-octanol/water (log KOW): 3,6

Ethyl acetate

Partition coefficient: n-octanol/water:

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

Print date: 27.12.2022 Revision date: 10.12.2022 EN Version: 9.0 Issue date: 10.12.2022 Page 14 / 16

Distribution coefficient n-octanol/water (log KOW): 0.68; Evaluation Bioaccumulation is not to be expected.

1-methoxy-2-propanol

Distribution coefficient n-octanol/water (log KOW): < 1; Evaluation The product has a low bioaccumulation potential

n-butyl acetate

Distribution coefficient n-octanol/water (log KOW):

No data available

oropan-2-ol

Distribution coefficient n-octanol/water (log KOW): 0,05 ; Evaluation Bioaccumulation is not to be expected.

Bioconcentration factor (BCF)

Ethyl acetate

Bioconcentration factor (BCF): 30

1-methoxy-2-propanol

Bioconcentration factor (BCF): 3,16

12.4. Mobility in soil

Xvlene

soil: Evaluation Absorbs slowly into the soil Water: Evaluation Floats on the water

Ethyl acetate

Water: Evaluation Swims on water and does not dissolve.

Air: Evaluation Slightly volatile, quickly distributed in the air.

1-methoxy-2-propanol

soil: Evaluation Highly mobile in the ground

Water: Evaluation The product is insoluble in water.

n-butyl acetate

:

No data available

propan-2-ol

Water: Evaluation The product is water soluble.

soil: Evaluation Mobile in the ground

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product

Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Dispose of waste according to applicable legislation.

List of proposed waste codes/waste designations in accordance with EWC

140603* other solvents and solvent mixtures

*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Appropriate disposal / Package

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number or ID number

UN 1993

14.2. UN proper shipping name

Land transport (ADR/RID): Flammable liquid, n.o.s.

according to Regulation (EC) No. 1907/2006 (REACH)

according to Regulation (EU) 2020/878

Article No.: 665 Nitroverdünner N2

Print date: 27.12.2022 Revision date: 10.12.2022 EN Version: 9.0 Revision date: 10.12.2022 Page 15 / 16

(ethylacetate)

Sea transport (IMDG): FLAMMABLE LIQUID, N.O.S.

(ethylacetate)

Air transport (ICAO-TI / IATA-DGR): Flammable liquid, n.o.s.

(ethylacetate)

14.3. Transport hazard class(es)

3

14.4. Packing group

Ш

14.5. Environmental hazards

Land transport (ADR/RID) not applicable
Marine pollutant not applicable

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Further information

Land transport (ADR/RID)

Tunnel restriction code D/E

Sea transport (IMDG)

EmS-No. F-E, S-E

14.7. Maritime transport in bulk according to IMO instruments

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

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

EU legislation

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value (in g/L): 865

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

EC No. CAS No.	Designation	REACH No.
205-500-4 141-78-6	Ethyl acetate	01-2119475103-46
200-661-7 67-63-0	propan-2-ol	01-2119457558-25
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29
203-539-1 107-98-2	1-methoxy-2-propanol	01-2119457435-35
215-535-7 1330-20-7	Xylene	01-2119488216-32
202-849-4 100-41-4	ethylbenzene	01-2119489370-35

SECTION 16: Other information

Full text of classification in section 3

according to Regulation (EC) No. 1907/2006 (REACH) according to Regulation (EU) 2020/878

Article No.:	665	Nitroverdünner N2	
Print date:	27.12.2022	Revision date: 10.12.2022	EN
Version:	9.0	Issue date: 10.12.2022	Page 16 / 16

Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H336	STOT-single exposure	May cause drowsiness or dizziness.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	Skin corrosion/irritation	Causes skin irritation.
STOT SE 3 / H335	STOT-single exposure	May cause respiratory irritation.
STOT RE 2 / H373	STOT-repeated exposure	May cause damage to organs (or state all organs affected, if known) through prolonged or
		repeated exposure (state route of exposure if it

is conclusively proven that no other routes of

exposure cause the hazard). May be fatal if swallowed and enters airways. Asp. Tox. 1 / H304 Aspiration hazard

Classification procedure

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP] Flam. Lig. 2 Flammable liquids On basis of test data. Eye Irrit. 2 Serious eye damage/eye irritation Calculation method. STOT SE 3 STOT-single exposure Calculation method.

Abbreviations and acronyms

European Agreement concerning the International Carriage of Dangerous Goods by Road ADR

OEL Occupational Exposure Limit Value

BLV Biological Limit Value Chemical Abstracts Service CAS

Classification, Labelling and Packaging CLP Carcinogenic, Mutagenic and Reprotoxic **CMR**

DIN German Institute for Standardization / German industrial standard

DNEL Derived No-Effect Level

EAKV European Waste Catalogue Directive

Effective Concentration EC **European Community** EC ΕN European Standard

IATA-DGR International Air Transport Association – Dangerous Goods Regulations

IBC Code International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous ICAO-TI

IMDG Code International Maritime Code for Dangerous Goods International Organization for Standardization ISO

Lethal Concentration LC

LD Lethal Dose

MARPOL Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

Organisation for Economic Cooperation and Development **OECD**

persistent, bioaccumulative, toxic **PBT PNEC** Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

Regulations concerning the International Carriage of Dangerous Goods by Rail RID

UN **United Nations**

VOC Volatile Organic Compounds

vPvB very persistent and very bioaccumulative

Further information

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.