

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

1.1 Product identifier

3-IN-ONE® Heavy Duty Cleaner Degreaser

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

Relevant identified uses of the substance or mixture:

Degreaser

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)

WD-40 Company Limited
252 Upper Third Street
Milton Keynes, MK9 1DZ, United Kingdom

WD-40 Company Limited
PO Box 440
GB-Kiln Farm, Milton Keynes, MK11 3LF, United Kingdom

Tel.: +44 (0) 1908 555400
Fax: +44 (0) 1908 266900
E-Mail: Compliance@wd40.co.uk
Homepage: www.wd40.co.uk

WD-40 Company Limited
Noorderpoort 93E
NL- 5916PJ Venlo

Tel.: +31 85 487 46 91

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

(IRL)

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

Telephone number of the company in case of emergencies:

+44 20 3807 3798

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

| Hazard class | Hazard category | Hazard statement |
|--------------|-----------------|---|
| Eye Irrit. | 2 | H319-Causes serious eye irritation. |
| Skin Sens. | 1 | H317-May cause an allergic skin reaction. |

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 13.03.2025 / 0014

Replacing version dated / version: 01.02.2023 / 0013

Valid from: 13.03.2025

PDF print date: 14.03.2025

3-IN-ONE® Heavy Duty Cleaner Degreaser

| | | |
|-----------------|---|---|
| Aquatic Chronic | 3 | H412-Harmful to aquatic life with long lasting effects. |
| Aerosol | 1 | H222-Extremely flammable aerosol. |
| Aerosol | 1 | H229-Pressurised container: May burst if heated. |

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H319-Causes serious eye irritation. H317-May cause an allergic skin reaction. H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P280-Wear protective gloves / protective clothing and eye protection / face protection.

P314-Get medical advice / attention if you feel unwell.

P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501-Dispose of contents / container to an approved waste disposal facility.

Without adequate ventilation, formation of explosive mixtures may be possible.

Orange, sweet, ext.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substances

n.a.

3.2 Mixtures

| | |
|---|--|
| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | |
| Registration number (REACH) | 01-2119463258-33-XXXX |
| Index | --- |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 919-857-5 |
| CAS | --- |
| content % | 1-<10 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | EUH066 Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 |

| | |
|---|-----------------------|
| Orange, sweet, ext. | |
| Registration number (REACH) | 01-2119493353-35-XXXX |
| Index | --- |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 232-433-8 |

| | |
|---|---|
| CAS | 8028-48-6 |
| content % | 2,5-<5 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 |

| | |
|---|---|
| 2-Butoxyethanol | Substance for which an EU exposure limit value applies. |
| Registration number (REACH) | 01-2119475108-36-XXXX |
| Index | 603-014-00-0 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 203-905-0 |
| CAS | 111-76-2 |
| content % | 1-<5 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Acute Tox. 3, H331 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 |
| Specific Concentration Limits and ATE | ATE (oral): 1200 mg/kg ATE (as inhalation, Aerosol): 0,5 mg/l/4h ATE (as inhalation, Vapours): 3 mg/l |

| | |
|---|--|
| Alcohols, C9-11, ethoxylated | |
| Registration number (REACH) | --- |
| Index | --- |
| EINECS, ELINCS, NLP, REACH-IT List-No. | --- |
| CAS | 68439-46-3 |
| content % | 1-<3 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Acute Tox. 4, H302 Eye Dam. 1, H318 |
| Specific Concentration Limits and ATE | ATE (oral): 1378 mg/kg |

| | |
|---|--|
| Ammonia | Substance for which an EU exposure limit value applies. |
| Registration number (REACH) | 01-2119982985-14-XXXX |
| Index | 007-001-01-2 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 215-647-6 |
| CAS | 1336-21-6 |
| content % | 0,1-<1 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) |
| Specific Concentration Limits and ATE | STOT SE 3, H335: >=5 % |

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.

Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Typically no exposure pathway.

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Fatigue

Mental confusion

Headaches

Dizziness

Allergic reaction

The following may occur:

Irritation of the eyes

Irritation of the respiratory tract

Coughing

Headaches

Dizziness

Effects/damages the central nervous system

Other dangerous properties cannot be ruled out.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂

Extinction powder

Water jet spray

Alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of sulphur

Oxides of nitrogen

Toxic gases

Danger of bursting (explosion) when heated

Possible build up of explosive/highly flammable vapour/air mixture.

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.
Avoid dust formation with solid or powder products.
Leave the danger zone if possible, use existing emergency plans if necessary.
Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.

Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
Flush residue using copious water.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Avoid inhalation of the vapours.
Avoid contact with eyes or skin.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Do not store with flammable or self-igniting materials.
Observe special regulations for aerosols!
Observe special storage conditions.
Store cool.
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well ventilated place.
Observe special storage conditions.

7.3 Specific end use(s)

No information available at present.
Observe the instructions for good working practice and the recommendations for risk assessment.
Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries,
depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
800 mg/m³

| Chemical Name | | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | |
|------------------------|--|---|--|
| WEL-TWA: 800 mg/m3 | WEL-STEL: --- | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Draeger - Hydrocarbons 2/a (81 03 581) - Compur - KITA-187 S (551 174) | | |
| BMGV: --- | Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40) | | |

| Chemical Name | | Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | |
|---|--|---|--|
| OELV-8h: 100 ppm (573 mg/m3) ("Stoddard solvent", [White spirit]) | OELV-15min: --- | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Draeger - Hydrocarbons 2/a (81 03 581) - Compur - KITA-187 S (551 174) | | |
| BLV: --- | Other information: --- | | |

| Chemical Name | | 2-Butoxyethanol | |
|---|--|-----------------|--|
| WEL-TWA: 25 ppm (123 mg/m3) (WEL-TWA), 20 ppm (98 mg/m3) (EU) | WEL-STEL: 50 ppm (246 mg/m3) (WEL-STEL, EU) | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-190 U(C) (548 873) - DFG Meth.-Nr. 2 (D) (Lösungsmittelgemische 3), DFG (E) (Solvent mixtures 3) - 2014, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2004) - NIOSH 1403 (ALCOHOLS IV) - 2003 - NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996 - OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990 | | |
| BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV) | Other information: Sk (WEL) | | |

| Chemical Name | | 2-Butoxyethanol | |
|--|--|-----------------|--|
| OELV-8h: 20 ppm (98 mg/m3) (OELV-8h, EU) | OELV-15min: 50 ppm (246 mg/m3) (OELV-15min, EU) | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-190 U(C) (548 873) - DFG Meth.-Nr. 2 (D) (Lösungsmittelgemische 3), DFG (E) (Solvent mixtures 3) - 2014, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2004) - NIOSH 1403 (ALCOHOLS IV) - 2003 - NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREENING)) - 1996 - OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990 | | |
| BLV: 200 mg/g creatinine (Butoxyacetic acid (BAA) in urine, h) (ACGIH-BEI) | Other information: IOELV, Skin | | |

| Chemical Name | | Ammonia | |
|--|---|---------|--|
| WEL-TWA: NH3 25 ppm (18 mg/m3) (WEL-TWA), 20 ppm (14 mg/m3) (EU) | WEL-STEL: NH3 35 ppm (25 mg/m3) (WEL-STEL), 50 ppm (36 mg/m3) (EU) | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Draeger - Ammonia 0,25/a (81 01 711) - Draeger - Ammonia 0,5%/a (CH 31 901) - Draeger - Ammonia 2/a (67 33 231) - Draeger - Ammonia 5/a (CH 20 501) - Draeger - Ammonia 5/b (81 01 941) - Compur - KITA-105 SA (548 642) - Compur - KITA-105 SB (548 659) - Compur - KITA-105 SC (548 667) - Compur - KITA-105 SD (548 675) - Compur - KITA-105 SH (548 683) - Compur - KITA-105 SM (548 691) - NIOSH 6015 (Ammonia) - 1990 - NIOSH 6016 (AMMONIA by IC) - 2016 - OSHA ID-164 (Ammonia in Workplace Atmospheres) - 1988 - OSHA ID-188 (Ammonia in workplace atmospheres – solid sorbent) - 2002 | | |
| BMGV: --- | Other information: --- | | |

| Chemical Name | | Ammonia | |
|--|---|---------|--|
| OELV-8h: NH3 20 ppm (14 mg/m3) (OELV-8h, EU) | OELV-15min: NH3 50 ppm (36 mg/m3) (OELV-15min, EU) | | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Draeger - Ammonia 0,25/a (81 01 711) - Draeger - Ammonia 0,5%/a (CH 31 901) - Draeger - Ammonia 2/a (67 33 231) - Draeger - Ammonia 5/a (CH 20 501) - Draeger - Ammonia 5/b (81 01 941) - Compur - KITA-105 SA (548 642) | | |

- Compur - KITA-105 SB (548 659)
- Compur - KITA-105 SC (548 667)
- Compur - KITA-105 SD (548 675)
- Compur - KITA-105 SH (548 683)
- Compur - KITA-105 SM (548 691)
- NIOSH 6015 (Ammonia) - 1990
- NIOSH 6016 (AMMONIA by IC) - 2016
- OSHA ID-164 (Ammonia in Workplace Atmospheres) - 1988
- OSHA ID-188 (Ammonia in workplace atmospheres – solid sorbent) - 2002

BLV: ---

Other information: IOELV

| Chemical Name | Petroleum gases, liquefied | | |
|--|---|-----|--|
| WEL-TWA: 1000 ppm (1750 mg/m3) (Liquefied petroleum gas (LPG)) | WEL-STEL: 1250 ppm (2180 mg/m3) (Liquefied petroleum gas (LPG)) | --- | |
| Monitoring procedures: | --- | | |
| BMGV: --- | Other information: --- | | |

| Chemical Name | Petroleum gases, liquefied | | |
|------------------------|-------------------------------|-----|--|
| OELV-8h: --- | OELV-15min: 1000 ppm (Butane) | --- | |
| Monitoring procedures: | --- | | |
| BLV: --- | Other information: --- | | |

| Chemical Name | Butane | | |
|-------------------------------|---|-----|--|
| WEL-TWA: 600 ppm (1450 mg/m3) | WEL-STEL: 750 ppm (1810 mg/m3) | --- | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-221 SA (549 459) - OSHA PV2010 (n-Butane) - 1993 | | |
| BMGV: --- | Other information: --- | | |

| Chemical Name | Butane | | |
|------------------------|---|-----|--|
| OELV-8h: --- | OELV-15min: 1000 ppm | --- | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-221 SA (549 459) - OSHA PV2010 (n-Butane) - 1993 | | |
| BLV: --- | Other information: --- | | |

| Chemical Name | Propane | | |
|---------------------------|--|-----|--|
| WEL-TWA: 1000 ppm (ACGIH) | WEL-STEL: --- | --- | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-125 SA (549 954) - OSHA PV2077 (Propane) - 1990 | | |
| BMGV: --- | Other information: --- | | |

| Chemical Name | Isobutane | | |
|--------------------------------|---|-----|--|
| WEL-TWA: 1000 ppm (EX) (ACGIH) | WEL-STEL: --- | --- | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-113 SB(C) (549 368) | | |
| BMGV: --- | Other information: --- | | |

| Chemical Name | Isobutane | | |
|------------------------|---|-----|--|
| OELV-8h: --- | OELV-15min: 1000 ppm | --- | |
| Monitoring procedures: | <ul style="list-style-type: none"> - Compur - KITA-113 SB(C) (549 368) | | |
| BLV: --- | Other information: --- | | |

| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | | | | | | |
|---|--|-----------------------------|------------|-------|--------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 46 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 185 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 46 | mg/kg bw/day | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 77 | mg/kg bw/day | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 871 | mg/m3 | |

2-Butoxyethanol

| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
|---------------------|---|------------------------------|------------|-------|------------|------|
| | Environment - freshwater | | PNEC | 8,8 | mg/l | |
| | Environment - marine | | PNEC | 0,88 | mg/l | |
| | Environment - sediment, freshwater | | PNEC | 34,6 | mg/kg dw | |
| | Environment - soil | | PNEC | 2,8 | mg/kg dw | |
| | Environment - sewage treatment plant | | PNEC | 463 | mg/l | |
| | Environment - sediment, marine | | PNEC | 3,46 | mg/kg dw | |
| | Environment - sporadic (intermittent) release | | PNEC | 9,1 | mg/l | |
| | Environment - soil | | PNEC | 2,33 | mg/kg | |
| | Environment - oral (animal feed) | | PNEC | 20 | mg/kg | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 123 | mg/m3 | |
| Consumer | Human - dermal | Short term, systemic effects | DNEL | 44,5 | mg/kg bw/d | |
| Consumer | Human - inhalation | Short term, systemic effects | DNEL | 426 | mg/m3 | |
| Consumer | Human - oral | Short term, systemic effects | DNEL | 13,4 | mg/kg bw/d | |
| Consumer | Human - inhalation | Short term, local effects | DNEL | 147 | mg/m3 | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 38 | mg/kg bw/d | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 49 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 3,2 | mg/kg bw/d | |
| Workers / employees | Human - dermal | Short term, systemic effects | DNEL | 89 | mg/kg bw/d | |
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 663 | mg/m3 | |
| Workers / employees | Human - inhalation | Short term, local effects | DNEL | 246 | mg/m3 | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 75 | mg/kg bw/d | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 98 | mg/m3 | |

| Orange, sweet, ext. | | | | | | |
|---------------------|--|-----------------------------|------------|---------|--------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - soil | | PNEC | 0,261 | mg/kg dw | |
| | Environment - sewage treatment plant | | PNEC | 2,1 | mg/l | |
| | Environment - freshwater | | PNEC | 0,0054 | mg/l | |
| | Environment - marine | | PNEC | 0,00054 | mg/l | |
| | Environment - water, sporadic (intermittent) release | | PNEC | 5,77 | µg/l | |
| | Environment - sediment, freshwater | | PNEC | 1,3 | mg/kg dw | |
| | Environment - sediment, marine | | PNEC | 0,13 | mg/kg dw | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 4,44 | mg/kg bw/day | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 4,44 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 7,78 | mg/m3 | |

| | | | | | | |
|---------------------|--------------------|-----------------------------|------|--------|--------------|--|
| Consumer | Human - dermal | Short term, local effects | DNEL | 0,0929 | mg/cm2 | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 31,1 | mg/m3 | |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 8,89 | mg/kg bw/day | |
| Workers / employees | Human - dermal | Short term, local effects | DNEL | 0,1858 | mg/cm2 | |

| Ammonia | | | | | | |
|---------------------|--|------------------------------|------------|--------|--------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| | Environment - freshwater | | PNEC | 0,0011 | mg/l | |
| | Environment - marine | | PNEC | 0,0011 | mg/l | |
| | Environment - water, sporadic (intermittent) release | | PNEC | 0,0068 | mg/l | |
| Industrial | Human - inhalation | Long term, local effects | DNEL | 14 | mg/m3 | |
| Industrial | Human - inhalation | Long term, systemic effects | DNEL | 47,6 | mg/m3 | |
| Industrial | Human - dermal | Long term, systemic effects | DNEL | 6,8 | mg/kg bw/day | |
| Industrial | Human - inhalation | Short term, local effects | DNEL | 36 | mg/m3 | |
| Industrial | Human - inhalation | Short term, systemic effects | DNEL | 47,6 | mg/m3 | |
| Industrial | Human - dermal | Short term, systemic effects | DNEL | 6,8 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 2,8 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 6,8 | mg/kg bw/day | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 6,8 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 23,8 | mg/m3 | |
| Consumer | Human - inhalation | Short term, local effects | DNEL | 7,2 | mg/m3 | |
| Consumer | Human - oral | Short term, local effects | DNEL | 6,8 | mg/kg bw/day | |
| Consumer | Human - dermal | Short term, systemic effects | DNEL | 6,5 | mg/kg bw/day | |
| Consumer | Human - inhalation | Short term, systemic effects | DNEL | 23,8 | mg/m3 | |

GB - United Kingdom | WEL-TWA = Workplace Exposure Limit - Long-term exposure limit - 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:
 (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |
 | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |
 | BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
 (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |
 | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU or 2024/869/EU:
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE), (14) = The substance

can cause sensitisation of the skin (2004/37/CE), (15) = Substantial contribution to the total body burden via dermal exposure possible. |

(IR) - Ireland/Éire | OELV-8h = Occupational Exposure Limit Value - 8-hour reference period (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU: (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). |

| OELV-15min = Occupational Exposure Limit Value - 15-minute reference period (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU: (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |

| BMGV = Biological Monitoring Guidance Value (Biological Monitoring Guidelines 2011, HSA (Health and Safety Authority)): ACGIH-BEI = BMGV have been sourced from Biological Exposure Indices (BEI) as issued by the American Conference of Governmental Industrial Hygienists (ACGIH). SCOEL = BMGV have been sourced from the Scientific Committee on Occupational Exposure Limit Values (SCOEL) which was set up by a Commission Decision (95/320/EC) with the mandate to advise the European Commission on occupational exposure limits for chemicals in the workplace. HSE = BMGV have been sourced from the Health and Safety Executive (HSE), UK.

(EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |

| Other information (Chemical Agents and Carcinogens CoP (Code of Practice) 2021, HSA (Health and Safety Authority)): Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Skin = Can be absorbed through skin. Asphx = asphyxiant. Sens = The substance can cause sensitisation. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU or 2024/869/EU:

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE), (15) = Substantial contribution to the total body burden via dermal exposure possible. |

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

With danger of contact with eyes.

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

If applicable

Protective nitrile gloves (EN ISO 374).

Minimum layer thickness in mm:

0,5

Permeation time (penetration time) in minutes:

480

The recommended maximum wearing time is 50% of breakthrough time.

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| Physical state: | Aerosol. Active substance: liquid. |
| Colour: | White |
| Odour: | Characteristic |
| Melting point/freezing point: | There is no information available on this parameter. |
| Boiling point or initial boiling point and boiling range: | n.a. |
| Flammability: | Does not apply to aerosols. |
| Lower explosion limit: | 0,8 Vol-% |
| Upper explosion limit: | 9,0 Vol-% |
| Flash point: | Does not apply to aerosols. |
| Auto-ignition temperature: | Does not apply to aerosols. |
| Decomposition temperature: | There is no information available on this parameter. |
| pH: | ~11 |
| Kinematic viscosity: | Does not apply to aerosols. |
| Solubility: | Mixable |
| Partition coefficient n-octanol/water (log value): | Does not apply to mixtures. |
| Vapour pressure: | There is no information available on this parameter. |
| Density and/or relative density: | Does not apply to aerosols. |
| Relative vapour density: | Does not apply to aerosols. |
| Particle characteristics: | Does not apply to aerosols. |

9.2 Other information

| | |
|--------------------|---|
| Explosives: | Possible build up of explosive/highly flammable vapour/air mixture. Product is not explosive. |
| Oxidising liquids: | No |

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No decomposition if used as intended.

10.4 Conditions to avoid

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

Possibly more information on health effects, see Section 2.1 (classification).

3-IN-ONE® Heavy Duty Cleaner Degreaser

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|---|----------|-------|---------|----------|-------------|---------------------------|
| Acute toxicity, by oral route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by dermal route: | | | | | | n.d.a. |
| Acute toxicity, by inhalation: | ATE | >20 | mg/l/4h | | | calculated value, Vapours |
| Acute toxicity, by inhalation: | ATE | >5 | mg/l/4h | | | calculated value, Aerosol |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|------------------------------------|----------|-------|---------|------------------------|--|---|
| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | >5000 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LD50 | >18,5 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant, Repeated exposure may cause skin dryness or cracking. |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Not irritant |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | No (skin contact) |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Human being | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | Mouse | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative, Analogous conclusion |

| | | | | | | |
|---|-------|---------|------------|-------|---|---|
| Germ cell mutagenicity: | | | | Rat | OECD 478 (Genetic Toxicology - Rodent dominant Lethal Test) | Negative, Analogous conclusion |
| Germ cell mutagenicity: | | | | | OECD 479 (Genetic Toxicology - In Vitro Sister Chromatid Exchange assay in Mammalian Cells) | Negative, Analogous conclusion Chinese hamster |
| Carcinogenicity: | NOAEC | 1100 | mg/m3 | Mouse | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies) | Female |
| Carcinogenicity: | NOAEC | >= 2200 | mg/m3 | Mouse | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies) | Male |
| Reproductive toxicity: | | | | | OECD 414 (Prenatal Developmental Toxicity Study) | Negative, Analogous conclusion |
| Reproductive toxicity (Effects on fertility): | NOAEL | >= 3000 | mg/kg bw/d | Rat | OECD 415 (One-Generation Reproduction Toxicity Study) | Male |
| Reproductive toxicity (Effects on fertility): | NOAEL | >= 1500 | mg/kg bw/d | Rat | OECD 415 (One-Generation Reproduction Toxicity Study) | Female |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | May cause drowsiness or dizziness., STOT SE 3, H336 |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 3000 | mg/kg/d | Rat | OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) | Analogous conclusion |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC | 1444 | ppm | Rat | OECD 413 (Subchronic Inhalation Toxicity - 90-Day Study) | Analogous conclusion |
| Aspiration hazard: | | | | | | Yes |
| Symptoms: | | | | | | unconsciousness, headaches, dizziness, discoloration of the skin, vomiting, diarrhoea |

Orange, sweet, ext.

| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|------------------------------------|----------|-------|-------|----------|--|--------------------|
| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | >5000 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Skin corrosion/irritation: | | | | Rabbit | | Irritant |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Not irritant |
| Respiratory or skin sensitisation: | | | | Mouse | OECD 429 (Skin Sensitisation - Local Lymph Node Assay) | Yes (skin contact) |
| Germ cell mutagenicity: | | | | | OECD 471 (Bacterial Reverse Mutation Test) | No |
| Aspiration hazard: | | | | | | Yes |

| | | | | | | |
|-----------|--|--|--|--|--|----------------------------|
| Symptoms: | | | | | | mucous membrane irritation |
|-----------|--|--|--|--|--|----------------------------|

| 2-Butoxyethanol | | | | | | |
|---|-----------------|--------------|-------------|------------------------|--|-------------------------------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | ATE | 1200 | mg/kg | | | |
| Acute toxicity, by dermal route: | LD50 | 2275 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | ATE | 3 | mg/l | | | Vapours |
| Acute toxicity, by inhalation: | ATE | 0,5 | mg/l/4h | | | Aerosol |
| Skin corrosion/irritation: | | | | Rabbit | Regulation (EC) 440/2008 B.4 (DERMAL IRRITATION/CORROSION) | Skin Irrit. 2, Product removes fat. |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Eye Irrit. 2 |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | No (skin contact) |
| Germ cell mutagenicity: | | | | Mouse | OECD 474 (Mammalian Erythrocyte Micronucleus Test) | Negative |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) | Negative |
| Carcinogenicity: | | | | Rat | OECD 451 (Carcinogenicity Studies) | Negative |
| Carcinogenicity: | NOAEC | 125 | ppm | Mouse | OECD 451 (Carcinogenicity Studies) | Negative |
| Reproductive toxicity: | NOAEL | 720 | mg/kg bw/d | | | |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | <69 | mg/kg bw/d | Rat | OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) | |
| Specific target organ toxicity - repeated exposure (STOT-RE), dermal: | NOAEL | >150 | mg/kg bw/d | Rabbit | OECD 411 (Subchronic Dermal Toxicity - 90-day Study) | |
| Aspiration hazard: | | | | | | No |

| | | | | | | |
|-----------|--|--|--|--|--|---|
| Symptoms: | | | | | | acidosis, ataxia, breathing difficulties, respiratory distress, drowsiness, unconsciousness, annoyance, coughing, headaches, gastrointestinal disturbances, insomnia, mucous membrane irritation, dizziness, nausea |
|-----------|--|--|--|--|--|---|

| Alcohols, C9-11, ethoxylated | | | | | | |
|---|-----------------|--------------|-------------|-----------------|--|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | 1378 | mg/kg | Rat | | |
| Acute toxicity, by oral route: | ATE | 1378 | mg/kg | | | |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute Dermal Toxicity) | Analogous conclusion |
| Acute toxicity, by inhalation: | LC50 | >20,1 | mg/l/4h | | | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant |
| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye Irritation/Corrosion) | Risk of serious damage to eyes., Analogous conclusion |
| Respiratory or skin sensitisation: | | | | Guinea pig | OECD 406 (Skin Sensitisation) | Not sensitising |
| Specific target organ toxicity - repeated exposure (STOT-RE): | NOAEL | 250 | mg/kg | | | |

| Ammonia | | | | | | |
|------------------------------------|-----------------|--------------|-------------|-----------------|--------------------------------|---|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | LD50 | 350 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | The toxicity is determined by the corrosivity of the product. |
| Acute toxicity, by inhalation: | LCLo | 5000 | ppm | Human being | | |
| Serious eye damage/irritation: | | | | Rabbit | | Risk of serious damage to eyes. |
| Respiratory or skin sensitisation: | | | | Guinea pig | | Not sensitising |

| | | | | | | |
|-----------|--|--|--|--|--|---|
| Symptoms: | | | | | | asthmatic symptoms, respiratory distress, unconsciousness, burning of the membranes of the nose and throat, vomiting, cornea opacity, coughing, cramps, circulatory collapse, shock, nausea |
|-----------|--|--|--|--|--|---|

| Petroleum gases, liquefied | | | | | | |
|------------------------------------|----------|-------|------|----------|-------------|-------------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by inhalation: | LC50 | >5 | mg/l | | | |
| Skin corrosion/irritation: | | | | | | Not irritant |
| Serious eye damage/irritation: | | | | | | Not irritant |
| Respiratory or skin sensitisation: | | | | | | No (skin contact) |
| Aspiration hazard: | | | | | | No |

| Butane | | | | | | |
|---|----------|--------|---------|------------------------|---|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by inhalation: | LC50 | 658 | mg/l/4h | Rat | | |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative |
| Germ cell mutagenicity: | | | | | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative |
| Germ cell mutagenicity: | | | | Human being | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative |
| Germ cell mutagenicity: | | | | Rat | OECD 474 (Mammalian Erythrocyte Micronucleus Test) | Negative |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEC | 21,394 | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test) | |
| Aspiration hazard: | | | | | | No |
| Symptoms: | | | | | | ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting. |

| Propane | | | | | | |
|---|-----------------|--------------|-------------|------------------------|---|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by inhalation: | LC50 | 658 | mg/l/4h | Rat | | |
| Acute toxicity, by inhalation: | LC50 | 260000 | ppmV/4h | Rat | | Gasses, Male, Analogous conclusion |
| Skin corrosion/irritation: | | | | | | Not irritant |
| Serious eye damage/irritation: | | | | | | Not irritant |
| Germ cell mutagenicity: | | | | | OECD 473 (In Vitro Mammalian Chromosome Aberration Test) | Negative |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative |
| Reproductive toxicity (Developmental toxicity): | NOAEC | 21,641 | mg/l | | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test) | |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | NOAEL | 7,214 | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test) | |
| Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.: | LOAEL | 21,641 | mg/l | Rat | OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test) | |
| Aspiration hazard: | | | | | | No |
| Symptoms: | | | | | | breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting. |

| Isobutane | | | | | | |
|--------------------------------|-----------------|--------------|-------------|------------------------|--|--------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by inhalation: | LC50 | 658 | mg/l/4h | Rat | | |
| Acute toxicity, by inhalation: | LC50 | 260000 | ppmV/4h | Rat | | Gasses, Male |
| Serious eye damage/irritation: | | | | Rabbit | | Not irritant |
| Germ cell mutagenicity: | | | | Salmonella typhimurium | OECD 471 (Bacterial Reverse Mutation Test) | Negative |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| 12.2. Persistence and degradability: | | | | | | | The surfactant(s) contained in this mixture complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer. |
| 12.3. Bioaccumulative potential: | | | | | | | n.d.a. |
| 12.4. Mobility in soil: | | | | | | | n.d.a. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| 12.6. Endocrine disrupting properties: | | | | | | | Does not apply to mixtures. |
| 12.7. Other adverse effects: | | | | | | | No information available on other adverse effects on the environment. |
| Other information: | | | | | | | According to the recipe, contains no AOX. |

| Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics | | | | | | | |
|---|----------|------|-------|------|---------------------------------|--|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | NOELR | 28d | 0,13 | mg/l | Oncorhynchus mykiss | QSAR | |
| 12.1. Toxicity to fish: | LC50 | 96h | >1000 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >1000 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to algae: | ErC50 | 72h | >1000 | mg/l | Pseudokirchneriella subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | EbC50 | 72h | >1000 | mg/l | Pseudokirchneriella subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOELR | 72h | 100 | mg/l | Raphidocelis subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |

| | | | | | | | |
|--|-------|-----|-------|------|-------------------------------------|---|---|
| 12.1. Toxicity to algae: | NOELR | 72h | 3 | mg/l | Pseudokirchnerie lla subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | 28d | 80 | % | | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | Readily biodegradable |
| 12.3. Bioaccumulative potential: | | | 5-6,7 | | | | High |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to bacteria: | EL50 | 48h | 0,95 | mg/l | | | QSAR |

Orange, sweet, ext.

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--|-----------|------|-----------------|------|----------------------------|--|---|
| 12.1. Toxicity to fish: | NOEC/NOEL | 96h | 4,0 | mg/l | Brachydanio rerio | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to fish: | EL50 | 96h | 2,4-3,1 | mg/l | Brachydanio rerio | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to fish: | LC50 | 96h | 0,7 | mg/l | Pimephales promelas | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 0,67 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 48h | 0,48 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to algae: | NOEC/NOEL | 72h | 50 | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 150 | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | 28d | 100 | % | | OECD 301 E (Ready Biodegradability - Modified OECD Screening Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | | 28d | 72-83,4 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | Readily biodegradable |
| 12.3. Bioaccumulative potential: | BCF | | 1,502- 2,597 | | | | calculated |
| 12.4. Mobility in soil: | | | | | | | Product is slightly volatile. |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

| | | | | | | | |
|--------------------|--|--|--|--|--|--|---|
| Other information: | | | | | | | Does not contain any organically bound halogens which can contribute to the AOX value in waste water. |
|--------------------|--|--|--|--|--|--|---|

| 2-Butoxyethanol | | | | | | | |
|--|-----------|------|-----------|------------|---------------------------------|---|-------------------------------------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 1474 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to fish: | NOEC/NOEL | 21d | >100 | mg/l | Brachydanio rerio | OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 1550 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 100 | mg/l | Daphnia magna | OECD 211 (Daphnia magna Reproduction Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 1840 | mg/l | Pseudokirchneriella subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOEC/NOEL | 72h | 286 | mg/l | Pseudokirchneriella subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | 28d | 95 | % | | OECD 301 E (Ready Biodegradability - Modified OECD Screening Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | | 28d | >99 | % | | OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test) | Readily biodegradable |
| 12.3. Bioaccumulative potential: | BCF | | 3,2 | | | | Slight |
| 12.3. Bioaccumulative potential: | Log Pow | | 0,81 | | | OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method) | Not to be expected |
| 12.4. Mobility in soil: | H (Henry) | | 0,0000016 | atm*m3/mol | | | |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to bacteria: | EC10 | 16h | >700 | mg/l | Pseudomonas putida | DIN 38412 T.8 | |

| Alcohols, C9-11, ethoxylated | | | | | | | |
|------------------------------|----------|------|-------|------|---------------------|-------------|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | 11 | mg/l | | | |
| 12.1. Toxicity to fish: | LC50 | 96h | 5-7 | mg/l | Oncorhynchus mykiss | | |

| | | | | | | | |
|--|-----------|-----|-------|------|-------------------------|---|-------------------------------------|
| 12.1. Toxicity to daphnia: | EC50 | 48h | 2,5 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 1-10 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 2,11 | mg/l | Daphnia magna | QSAR | |
| 12.1. Toxicity to algae: | EC50 | 72h | 1,978 | mg/l | Desmodesmus subspicatus | QSAR | |
| 12.1. Toxicity to algae: | EC50 | 72h | 1-10 | mg/l | Skeletonema costatum | | |
| 12.2. Persistence and degradability: | | 28d | >60 | % | | OECD 301 B (Ready Biodegradability - Co2 Evolution Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | | | 99 | % | | OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test) | |
| 12.3. Bioaccumulative potential: | | | | | | | Not to be expected |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |
| Toxicity to bacteria: | EC50 | 4h | 410 | mg/l | | | Analogous conclusion |
| Water solubility: | | | | | | | Soluble |

Ammonia

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--------------------------------------|----------|------|-------|------|----------------------------|-------------|---------------------------|
| 12.1. Toxicity to fish: | LC50 | 96h | 8,2 | mg/l | Pimephales promelas | | |
| 12.1. Toxicity to fish: | LC50 | 96h | 0,53 | mg/l | Oncorhynchus mykiss | | Anhydrous substance |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 0,66 | mg/l | Daphnia pulex | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 1,16 | mg/l | Daphnia pulicaria | | Anhydrous substance |
| 12.2. Persistence and degradability: | | 28d | <70 | % | | | Not readily biodegradable |
| 12.3. Bioaccumulative potential: | | | | | | | Not to be expected |
| Toxicity to bacteria: | EC50 | 5min | 1,16 | mg/l | Photobacterium phosphoreum | | Anhydrous substance |

Petroleum gases, liquefied

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--|----------|------|--------|------|----------|-------------|-------------------------------------|
| 12.1. Toxicity to fish: | LC50 | 96h | 147,54 | mg/l | | QSAR | |
| 12.3. Bioaccumulative potential: | | | | | | | Not to be expected |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

Butane

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|----------------------------------|----------|------|-------|------|----------|-------------|---|
| 12.1. Toxicity to fish: | LC50 | 96h | 24,11 | mg/l | | QSAR | |
| 12.1. Toxicity to daphnia: | LC50 | 48h | 14,22 | mg/l | | QSAR | |
| 12.3. Bioaccumulative potential: | Log Pow | | 2,98 | | | | A notable biological accumulation potential is not to be expected (LogPow 1-3). |

| | | | | | | | |
|--|--|--|--|--|--|--|-------------------------------------|
| 12.4. Mobility in soil: | | | | | | | Not to be expected |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

Propane

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--|----------|------|-------|------|----------|-------------|---|
| 12.3. Bioaccumulative potential: | Log Pow | | 2,28 | | | | A notable biological accumulation potential is not to be expected (LogPow 1-3). |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

Isobutane

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--|----------|------|-------|------|----------|-------------|---|
| 12.1. Toxicity to fish: | LC50 | 96h | 27,98 | mg/l | | | |
| 12.1. Toxicity to algae: | EC50 | 96h | 7,71 | mg/l | | | |
| 12.2. Persistence and degradability: | | | | | | | Readily biodegradable |
| 12.3. Bioaccumulative potential: | | | | | | | A notable biological accumulation potential is not to be expected (LogPow 1-3). |
| 12.5. Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

SECTION 13: Disposal considerations**13.1 Waste treatment methods****For the substance / mixture / residual amounts**

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

07 06 01 aqueous washing liquids and mother liquors

16 05 04 gases in pressure containers (including halons) containing hazardous substances

20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging


SECTION 14: Transport information**General statements****Transport by road/by rail (ADR/RID)**

14.1. UN number or ID number:

1950

14.2. UN proper shipping name:

UN 1950 AEROSOLS

| | | |
|-----------------------------------|----------------|---|
| 14.3. Transport hazard class(es): | 2.1 |  |
| 14.4. Packing group: | - | |
| 14.5. Environmental hazards: | Not applicable | |
| Tunnel restriction code: | D | |
| Classification code: | 5F | |
| LQ: | 1 L | |
| Transport category: | 2 | |

Transport by sea (IMDG-code)

14.1. UN number or ID number: 1950

14.2. UN proper shipping name:

UN 1950 AEROSOLS (NAPHTHA (PETROLEUM), D-LIMONENE)

| | | |
|-----------------------------------|----------------|---|
| 14.3. Transport hazard class(es): | 2.1 |  |
| 14.4. Packing group: | - | |
| 14.5. Environmental hazards: | Not applicable | |
| Marine Pollutant: | Not applicable | |
| EmS: | F-D, S-U | |
| | | |

Transport by air (IATA)

14.1. UN number or ID number: 1950

14.2. UN proper shipping name:

UN 1950 Aerosols, flammable

| | | |
|-----------------------------------|----------------|---|
| 14.3. Transport hazard class(es): | 2.1 |  |
| 14.4. Packing group: | - | |
| 14.5. Environmental hazards: | Not applicable | |

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

| Hazard categories | Notes to Annex I | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements | Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements |
|-------------------|------------------|---|---|
| P3a | 11.1 | 150 (netto) | 500 (netto) |

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 2 - This product contains the substances listed below:

| Entry Nr | Dangerous substances | Notes to Annex I | Qualifying quantity (tonnes) for the application of - Lower-tier requirements | Qualifying quantity (tonnes) for the application of - Upper-tier requirements |
|----------|--|------------------|---|---|
| 18 | Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas | 19 | 50 | 200 |

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): < 19,4 %

REGULATION (EC) No 648/2004

5 % or over but less than 15 %

aliphatic hydrocarbons

less than 5 %

anionic surfactants

non-ionic surfactants

perfumes

LIMONENE

BENZISOTHIAZOLINONE

METHYLISOTHIAZOLINONE

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

EU F0009

Revised sections: 5, 8, 15

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|---|
| Eye Irrit. 2, H319 | Classification according to calculation procedure. |
| Skin Sens. 1, H317 | Classification according to calculation procedure. |
| Aquatic Chronic 3, H412 | Classification according to calculation procedure. |
| Aerosol 1, H222 | Classification according to calculation procedure. |
| Aerosol 1, H229 | Classification based on the form or physical state. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

Eye Irrit. — Eye irritation

Skin Sens. — Skin sensitization

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aerosol — Aerosols

Flam. Liq. — Flammable liquid

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Asp. Tox. — Aspiration hazard

Skin Irrit. — Skin irritation

Acute Tox. — Acute toxicity - inhalation

Acute Tox. — Acute toxicity - oral

Eye Dam. — Serious eye damage

Skin Corr. — Skin corrosion

Aquatic Acute — Hazardous to the aquatic environment - acute

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community

ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera

EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

IUPAC International Union for Pure Applied Chemistry

LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil

Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

mg/kg bw mg/kg body weight

mg/kg bw/d, mg/kg bw/day mg/kg body weight/day

mg/kg dw mg/kg dry weight

mg/kg wwt mg/kg wet weight

n.a. not applicable

n.av. not available

n.c. not checked

n.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million

PVC Polyvinylchloride

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.