
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: Powerkleen
- Contains alcohols, C9-11, ethoxylated (9EO) and mixture of 5-chloro-2-methyl-4-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

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

- Use of the substance/mixture: Bactericidal hard surface cleaner for cleaning floors, walls, paintwork, tiles, stainless steel, plastic etc
- Use advised against: Not intended for use on unsealed wood or aluminium

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: Unico Ltd
- Address of Supplier: North Main Street
Carronshore
Falkirk
FK2 5HT
UK
- Telephone: +44 (0) 1324 573400
- Email: Sales@unicodirect.com

1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1324 573410
(office hours only Mon – Fri 08:30 – 17:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]: Skin Irrit. 2, H315; Skin Sens.1, H317
Eye Dam. 1, H318; Aquatic Chronic 3, H412
- Additional information: For full text of Hazard- and EU Hazard-statements: see section 16

2.2 Label elements



- Signal Word: Danger
- Hazard statements
 - H315 - Causes skin irritation.
 - H317 - May cause an allergic skin reaction.
 - H318 - Causes serious eye damage.
 - H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements
 - P273 - Avoid release to the environment.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 - P302+P352+P333+P313 - IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
 - P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or

SECTION 2: Hazards identification (....)

doctor/physician.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents/container to an authorised waste collection point

- Supplemental Hazard Information (EU)

EUH208 - Contains d-limonene. May produce an allergic reaction.

Label requirements for the Detergents Regulation (EC 684/2004, 907/2006):

Contains amongst other ingredients < 5% phosphates, non-ionic surfactants, cationic surfactants, disinfectants, perfumes, limonene, terpinolene, citral, methylisothiazolinone (MIT) and methylchloroisothiazolinone (CMIT)

2.3 Other hazards

- Use biocides safely. Always read the label and product information before use.
- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1 Substances

3.2 Mixtures

Chemical Name	Conc.	CAS No.	EC No.	Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]	REACH Registration Number	WEL /OEL
(2-methoxy methylethoxy) propanol	< 10%	34590-94-8	252-104-2	Not Classified	01-2119450011-60	Yes
Alcohols, C9-11, ethoxylated (9EO)	< 10%	68439-46-3	-	Acute Tox. 4, H302; Eye Dam. 1, H318	-	No
* Quaternary ammonium compounds, benzyl-C12-14 (even-numbered) -alkyldimethyl, chlorides	< 5%	-	939-350-2	Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	01-2119970550-39	No
1-methoxy propan-2-ol	< 1%	107-98-2	203-539-1	Flam. Liq. 3, H226; STOT SE 3, H336	-	Yes
d-limonene; (R)-p-mentha-1,8-diene	< 1%	5989-27-5	227-813-5	Flam. Liq. 3, H226; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	-	No
Ethanol	< 1%	64-17-5	200-578-6	Flam. Liq. 2, H225	-	Yes
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	< 1%	55965-84-9	611-341-5	Acute Tox. 3, H301; Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317; Acute Tox. 3, H331; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	-	No

SECTION 3: Composition/information on ingredients (....)

Additional information: For information on ingredients as required by the Detergents Regulation (EC) No. 648/2004 see section 16

* The biocidal active substance, quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethyl, chlorides EC 939-350-2, is being evaluated under, and listed on Article 95 of, the Biocidal Products Regulation (BPR) (Regulation EU 528/2012) as Alkyl (C12-16) dimethylbenzyl ammonium chloride ADBAC/BKC (C12-C16), CAS 68424-85-1 & EC 270-325-2,

SECTION 4: First aid measures

4.1 Description of first aid measures

- Contact with eyes
If substance has got into eyes, immediately wash out with plenty of water for several minutes
Irrigate eyes thoroughly whilst lifting eyelids
Remove contact lenses, if present and easy to do. Continue rinsing.
Get immediate medical advice/attention.
- Contact with skin
Take off contaminated clothing and wash it before reuse.
Wash affected area with plenty of water
If skin irritation or rash occurs: Get medical advice/attention.
- Ingestion
Rinse mouth.
Give plenty of water to drink
Get medical advice/attention.
Do not induce vomiting unless directed by medical personnel.
- Inhalation
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Keep warm and at rest, in a half upright position. Loosen clothing
If exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
Causes redness and irritation
May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
- Contact with skin
Causes redness and irritation
May cause an allergic skin reaction.
- Ingestion
May cause gastro-intestinal irritation
May cause gastro-intestinal disturbances
May cause nausea/vomiting
- Inhalation
May cause respiratory tract irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically
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SECTION 5: Firefighting measures

5.1 Extinguishing media

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures (....)

- Decomposition products may include nitrogen and carbon oxides

5.3 Advice for firefighters

- Collect contaminated fire extinguishing water separately. This MUST not be discharged into drains. Prevent fire extinguishing water from contaminating surface or ground water.
 - Special protective equipment: Wear self-contained breathing apparatus (SCBA). Wear full protective clothing including chemical protection suit.
-

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Rescuers should take suitable precautions to avoid becoming casualties themselves
- Personal precautions for non-emergency personnel: Avoid breathing vapours, mist or gas; Avoid contact with skin and eyes; Wear protective clothing as per section 8; Wash thoroughly after handling.
- Personal precautions for emergency responders: Evacuate the area and keep personnel upwind; Wear protective clothing as per section 8; Butyl rubber or nitrile rubber gloves are recommended

6.2 Environmental precautions

- Avoid release to the environment.
- Do not allow to enter public sewers and watercourses
- If polluted water reaches drainage systems or water courses, immediately inform appropriate authorities

6.3 Methods and material for containment and cleaning up

- Small spills
 - Dilute with a large volume of water
 - Wipe up spillage with damp absorbent cloth or towel
- Large spills
 - Contain the spillage using bunding
 - Absorb spillage in suitable inert material
 - Place in appropriate container
 - Seal containers and label them
 - Remove contaminated material to safe location for subsequent disposal
 - Ventilate the area and wash spill site after material pick-up is complete
 - Seek expert advice for removal and disposal of all contaminated materials and wastes

6.4 Reference to other sections

- See section(s): 7,8 &13
-

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only in well ventilated areas
 - Avoid breathing vapours, mist or gas
 - No respiratory protection is required unless subject to contact with substance mist
 - Do not get in eyes, on skin, or on clothing.
 - Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
 - Wear protective gloves
 - Butyl rubber or nitrile rubber are recommended
 - Wear goggles giving complete eye protection
 - Wash contaminated clothing before reuse.
 - Contaminated work clothing should not be allowed out of the workplace.
 - Wash thoroughly after use
 - Ensure eyewash stations and safety showers are nearby
 - Do not eat, drink or smoke when using this product.
-

SECTION 7: Handling and storage (....)

7.2 Conditions for safe storage, including any incompatibilities

- Keep locked up and out of reach of children
- Keep away from food, drink and animal feedingstuffs
- Keep only in the original container
- Keep container tightly closed, in a cool, well ventilated place
- Opened containers should be carefully resealed and stored in an upright position
- Keep away from acids and alkalis
- Keep away from oxidising substances

7.3 Specific end use(s)

- Biocide
- Cleaning agent

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- (2-methoxymethylethoxy) propanol
 (EU) OELV (long term TWA) 50 ppm 308 mg/m³
 WEL (long term) 50 ppm 308 mg/m³ (UK, can be absorbed through the skin)
 DNEL (inhalational) 308 mg/m³ Industry, Long Term, Systemic Effects
 DNEL (dermal) 283 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 DNEL (inhalational) 37.2 mg/m³ Consumer, Long Term, Systemic Effects
 DNEL (dermal) 121 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 DNEL (oral) 36 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 PNEC aqua (freshwater) 19 mg/l
 PNEC aqua (intermittent releases, freshwater) 190 mg/l
 PNEC aqua (marine water) 1.9 mg/l
 PNEC (STP) 4.168 g/l
 PNEC sediment (freshwater) 70.2 mg/kg
 PNEC sediment (marine water) 7.02 mg/kg
 PNEC terrestrial (soil) 2.74 mg/kg
- Alcohols, C9-11, ethoxylated (9EO)
 DNEL (inhalational) 294 mg/m³ Industry, Long Term, Systemic Effects
 DNEL (dermal) 2 080 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 DNEL (inhalational) 87 mg/m³ Consumer, Long Term, Systemic Effects
 DNEL (dermal) 1 250 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 DNEL (oral) 25 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 PNEC aqua (freshwater) 103.79 ug/l
 PNEC aqua (intermittent releases, freshwater) 14 ug/l
 PNEC aqua (marine water) 103.79 ug/l
 PNEC (STP) 1.4 mg/l
 PNEC sediment (freshwater) 13.7 mg/kg
 PNEC sediment (marine water) 13.7 mg/kg
 PNEC terrestrial (soil) 1 mg/kg
- Quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethylchlorides
 DNEL (inhalational) 3.96 mg/m³ Industry, Long Term, Systemic Effects
 DNEL (dermal) 5.7 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 DNEL (inhalational) 1.64 mg/m³ Consumer, Long Term, Systemic Effects
 DNEL (dermal) 3.4 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 DNEL (oral) 3.4 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 PNEC aqua (freshwater) 900 ng/l
 PNEC aqua (intermittent releases, freshwater) 160 ng/l
 PNEC aqua (marine water) 960 ng/l
 PNEC (STP) 400 ug/l
 PNEC sediment (freshwater) 12.27 mg/kg
 PNEC sediment (marine water) 13.09 mg/kg
 PNEC terrestrial (soil) 7 mg/kg

SECTION 8: Exposure controls/personal protection (....)

- 1-methoxypropan-2-ol
 - (EU) OELV (long term TWA) 100 ppm 375 mg/m³
 - (EU) OELV (short term limit value) 150 ppm 563 mg/m³
 - WEL (long term TWA) 100 ppm 375 mg/m³ (UK)
 - WEL (short term limit value) 150 ppm 560 mg/m³ (UK)
 - DNEL (inhalational) 369 mg/m³ Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 553.5 mg/m³ Industry, Acute/Short Term, Systemic Effects
 - DNEL (inhalational) 553.5 mg/m³ Industry, Acute/Short Term, Local Effects
 - DNEL (dermal) 183 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 43.9 mg/m³ Consumer, Long Term, Systemic Effects
 - DNEL (dermal) 78 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - DNEL (oral) 33 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - PNEC aqua (freshwater) 10 mg/l
 - PNEC aqua (intermittent releases, freshwater) 100 mg/l
 - PNEC aqua (marine water) 1 mg/l
 - PNEC (STP) 100 mg/l
 - PNEC sediment (freshwater) 52.3 mg/kg
 - PNEC sediment (marine water) 5.2 mg/kg
 - PNEC terrestrial (soil) 4.59 mg/kg
- d-limonene; (R)-p-mentha-1,8-diene
 - DNEL (inhalational) 66.7 mg/m³ Industry, Long Term, Systemic Effects
 - DNEL (dermal) 9.5 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 16.6 mg/m³ Consumer, Long Term, Systemic Effects
 - DNEL (dermal) 4.8 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - DNEL (oral) 4.8 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - PNEC aqua (freshwater) 141.4 ug/l
 - PNEC aqua (marine water) 1.4 ug/l
 - PNEC (STP) 1.8 mg/l
 - PNEC sediment (freshwater) 3.85 mg/kg
 - PNEC sediment (marine water) 385 ug/kg
 - PNEC terrestrial (soil) 763 ug/kg
 - PNEC secondary poisoning (food) 133 mg/kg
- Ethanol
 - WEL (long term TWA) 1 000 ppm 1 920 mg/m³ (UK)
 - DNEL (inhalational) 950 mg/m³ Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 1 900 mg/m³ Industry, Acute/Short Term, Local Effects
 - DNEL (dermal) 343 mg/kg (bw/day) Industry, Long Term, Systemic Effects
 - DNEL (inhalational) 114 mg/m³ Consumer, Long Term, Systemic Effects
 - DNEL (inhalational) 950 mg/m³ Consumer, Acute/Short Term, Local Effects
 - DNEL (dermal) 206 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - DNEL (oral) 87 mg/kg (bw/day) Consumer, Long Term, Systemic Effects
 - PNEC aqua (freshwater) 960 ug/l
 - PNEC aqua (intermittent releases, freshwater) 2.75 mg/l
 - PNEC aqua (marine water) 790 ug/l
 - PNEC (STP) 580 mg/l
 - PNEC sediment (freshwater) 3.6 mg/kg
 - PNEC sediment (marine water) 2.9 mg/kg
 - PNEC terrestrial (soil) 630 ug/kg
 - PNEC secondary poisoning (food) 380 - 720 mg/kg
- Mixture of 5-chloro-2-methyl-4-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one
 - DNEL (inhalational) 20 ug/m³ Industry, Long Term, Local Effects
 - DNEL (inhalational) 40 ug/m³ Industry, Acute/Short Term, Local Effects
 - DNEL (inhalational) 20 ug/m³ Industry, Long Term, Local Effects
 - DNEL (inhalational) 40 ug/m³ Industry, Acute/Short Term, Local Effects
 - DNEL (oral) 90 ug/kg (bw/day) Consumer, Long Term, Systemic Effects
 - DNEL (oral) 110 ug/kg (bw/day) Consumer, Acute/Short Term, Systemic Effects
 - PNEC aqua (freshwater) 3.39 ug/l
 - PNEC aqua (intermittent releases, freshwater) 3.39 ug/l
 - PNEC aqua (marine water) 3.39 ug/l
 - PNEC aqua (intermittent releases, marine water) 3.39 ug/l
 - PNEC (STP) 230 ug/l
 - PNEC sediment (freshwater) 27 ug/kg

SECTION 8: Exposure controls/personal protection (....)

PNEC sediment (marine water) 27 ug/kg
 PNEC terrestrial (soil) 10 ug/kg

8.2 Exposure controls

- Selection and use of personal protective equipment should be based on a risk assessment of exposure potential
- If practicable, engineering controls should be provided where airborne concentrations exceed exposure limits
- In case of insufficient ventilation, wear suitable respiratory equipment
- Where a reusable half mask respirator is required, use EN 140, with gas/vapour filter EN 14387 type ABEK, or EN 405; EN 1827
- Where a full face mask respirator is required, use EN 136, with gas/vapour filter EN 14387 type ABEK
- Wear safety glasses approved to standard EN 166.
- When handling this substance, e.g. diluting, wear goggles giving complete eye protection
- Use a suitable barrier cream to protect skin
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Butyl rubber or nitrile rubber are recommended
- The selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used and the supplier should be consulted.
- Wear suitable protective clothing
- Contaminated work clothing should not be allowed out of the workplace.
- Contaminated clothing should be laundered before reuse
- Use good personal hygiene practices
- Do not eat, drink or smoke when using this product.
- Wash thoroughly after handling.
- Ensure eyewash stations and safety showers are nearby



SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Blue liquid
- Odour: Mild perfume
- Odour threshold: No information available
- pH: 12.4 – 13.4
- Melting point/freezing point: No information available
- Initial boiling point and boiling range: Approx. 100°C
- Flashpoint: Not applicable
- Evaporation Rate: No information available
- Flammability (solid,gas): Not flammable
- Upper/lower flammability or explosive limits: Not applicable
- Vapour Pressure: No information available
- Vapour Density: No information available
- Relative Density: 1.012 – 1.024
- Solubility(ies): Soluble in water
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: No information available
- Decomposition temperature: No information available
- Viscosity: No information available
- Explosive Properties: No information available

SECTION 9: Physical and chemical properties (....)

- Oxidising properties: Not oxidising

9.2 Other information

- No information available
-

SECTION 10: Stability and reactivity

10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

10.2 Chemical stability

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- Reacts with acid

10.4 Conditions to avoid

- Avoid extremes of temperature
- Keep away from direct sunlight

10.5 Incompatible materials

- Incompatible with strong acids
- Incompatible with alkalis (strong bases)
- Incompatible with strong oxidizing substances

10.6 Hazardous decomposition products

- Decomposition products may include nitrogen and carbon oxides
 - Decomposition products may include aldehydes
-

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute Toxicity
Based on available data, the classification criteria are not met

SECTION 11: Toxicological information (....)

Chemical Name	LD50 (oral, rat)	LC50 (inhalation, rat)	LD50 (dermal, rabbit)
(2-methoxy methylethoxy) propanol	5 000 mg/kg	No data available	9 510 mg/kg
Alcohols, C9-11, ethoxylated (9EO)	3 488 mg/kg	1.6 mg/l (4 hr)	2 000 mg/kg
Quaternary ammonium compounds, benzyl-C12-14 (even-numbered) -alkyldimethyl, chlorides	344 - 795 mg/kg	220 - 280 mg/m ³ (4 hr)	3 412.5 mg/kg
1-methoxypropan-2-ol	3 739 - 4 277 mg/kg	(mouse) 6 000 - 7 000 ppm /6h	(rat) 2 000 mg/kg
d-limonene; (R)-p-mentha-1,8-diene	2 000 mg/kg	No data available	No data available
Ethanol	1187 - 15 010 mg/kg	115.9 - 133.8 mg/l (4 hr)	20 000 mg/kg
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	64 - 561 mg/kg	171 - 2 360 mg/m ³ (4 hr)	87.12 - 660 mg/kg

- Skin corrosion/irritation
Causes skin irritation.
Classification based on calculation and concentration thresholds
- Serious eye damage/irritation
Causes serious eye damage
Classification based on calculation and concentration thresholds
- Respiratory or skin sensitisation
May cause an allergic skin reaction.
Classification based on calculation and concentration thresholds
- Germ cell mutagenicity
No evidence of mutagenic effects
- Carcinogenicity
No evidence of carcinogenic effects
- Reproductive toxicity
No evidence of reproductive effects
- Specific target organ toxicity (STOT) - single exposure
Based on available data, the classification criteria are not met
- Specific target organ toxicity (STOT) - repeated exposure
Based on available data, the classification criteria are not met
- Aspiration hazard
Based on available data, the classification criteria are not met
- Contact with eyes
Causes redness and irritation
May cause severe damage with formation of corneal ulcers and permanent impairment of vision.
- Contact with skin
Causes redness and irritation
May cause an allergic skin reaction.
- Ingestion
May cause gastro-intestinal irritation

SECTION 11: Toxicological information (....)

- May cause gastro-intestinal disturbances
- May cause nausea/vomiting
- Inhalation
 - May cause respiratory tract irritation.

SECTION 12: Ecological information

12.1 Toxicity

- Harmful to aquatic life with long lasting effects.
- Classification based on calculation and concentration thresholds
- (2-methoxymethylethoxy) propanol
 - LC50 (fish) 1 - 10 g/l (4 days)
 - LC50 (aquatic invertebrates) 1 g/l (72 hr)
 - EL50 (aquatic algae) 969 mg/l (72 hr)
- Alcohols, C9-11, ethoxylated (9EO)
 - LC50 (fish) 5 - 7 mg/l (4 days)
 - EC50 (aquatic invertebrates) 2.5 mg/l (48 hr)
 - EL50 (aquatic algae) 1.4 mg/l (96 hr)
- Quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethylchlorides
 - LC50 (fish) 515 - 1 700 ug/l (4 days)
 - EC50 (aquatic invertebrates) 16 ug/l (48 hr)
 - EC50 (aquatic algae) 14 - 260 ug/l (72 hr)
- 1-methoxypropan-2-ol
 - LC50 (fish) 1 - 20.8 g/l (4 days)
 - LC50 (aquatic invertebrates) 21.1 - 25.9 g/l (48 hr)
 - EC50 (aquatic algae) 1 g/l (7 days)
- d-limonene; (R)-p-mentha-1,8-diene
 - LC50 (fish) 460 - 720 ug/l (4 days)
 - EC50 (aquatic invertebrates) 307 - 510 ug/l (48 hr)
 - EC50 (aquatic algae) 214 - 320 ug/l (72 hr)
- Ethanol
 - LC50 (fish) 14.2 - 15.4 g/l (4 days)
 - EC50 (aquatic invertebrates) 10 g/l (48 hr)
 - EC50 (aquatic algae) 275 mg/l (72 hr)
- Mixture of 5-chloro-2-methyl-4-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one
 - LC50 (fish) 190 - 300 ug/l (4 days)
 - EC50 (aquatic invertebrates) 7 - 160 ug/l (48 hr)
 - EC50 (aquatic algae) 18.1 - 37.1 ug/l (48 hr)

12.2 Persistence and degradability

- The surfactant(s) contained in this preparation 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

- No information available

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- Not a vPvB according to REACH Annex XIII

12.6 Other adverse effects

SECTION 12: Ecological information (....)

- No information available
-

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- This material and/or its container must be disposed of as hazardous waste
- Disposal should be in accordance with local, state or national legislation
- Dispose of contents/container to an authorised waste collection point

13.2 Classification

- The waste must be identified according to the List of Wastes (2000/532/EC)
 - Hazardous Property Code(s): HP 4 Irritant; HP 13 Sensitising; HP 14 Ecotoxic
-

SECTION 14: Transport information

Not classified as hazardous for transport

14.1 UN number

- UN No.: Not applicable

14.2 UN proper shipping name

- Proper Shipping Name: Not applicable

14.3 Transport hazard class(es)

- Hazard Class: Not applicable

14.4 Packing group

- Packing Group: Not applicable

14.5 Environmental hazards

- Not applicable

14.6 Special precautions for user

- No special precautions are required for this product

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- Not applicable

14.8 Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.9 Sea (IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable

14.10 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable
 - ICAO UN No.: Not applicable
 - ICAO Hazard Class: Not applicable
-

SECTION 14: Transport information (....)

- ICAO Packing Group: Not applicable

SECTION 15: Regulatory information

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

- This safety data sheet is provided in compliance with REACH Regulation (EC) No 1907/2006 as amended by Regulation (EU) 2015/830
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe
- This product is covered by the EU Biocides Regulation 528/2012 (EU BPR)
- Label requirements for the Detergents Regulation (EC 684/2004, 907/2006): Contains amongst other ingredients < 5% phosphates, non-ionic surfactants, cationic surfactants, disinfectants, perfumes, limonene, terpinolene, citral, methylisothiazolinone (MIT) and methylchloroisothiazolinone (CMIT)

15.2 Chemical safety assessment

- A REACH chemical safety assessment has not been carried out

SECTION 16: Other information

The above information is believed to be correct but does not purport to be all inclusive and shall only be used as a guide. The company will not be held liable for any damage resulting from handling or from contact with this product.

Sources of data: Information from published literature and internal company data

Revision No. 3.0. Revised June 2018.

Changes made: Revised classification and re-issue to conform to Revised Annex II in Regulation (EU) 2015/830

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

Skin Irrit. 2, H315:	Classification based on calculation and concentration thresholds
Skin Sens. 1B, H317:	Classification based on calculation and concentration thresholds
Eye Dam. 1, H318:	Classification based on calculation and concentration thresholds
Aquatic Chronic 3, H412:	Classification based on calculation and concentration thresholds

Text not given with phrase codes where they are used elsewhere in this safety data sheet:

- H225: Highly flammable liquid and vapour.
- H226: Flammable liquid and vapour
- H301: Toxic if swallowed
- H302: Harmful if swallowed
- H304: May be fatal if swallowed and enters airways
- H311: Toxic in contact with skin
- H314: Causes severe skin burns and eye damage
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage
- H331: Toxic if inhaled
- H336: May cause drowsiness or dizziness
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects
- H412: Harmful to aquatic life with long lasting effects

Acronyms

- CAS: Chemical Abstracts Service
- DNEL: Derived No-Effect Level

SECTION 16: Other information (....)

- EC: European Community
- EC50: Effective Concentration, 50%
- GHS: Globally Harmonised System
- LC50: Lethal Concentration, 50%
- LD50: Lethal Dose, 50%
- NOAEL: No observed adverse effect level
- NOEC: No observed effect concentration
- OEL: Occupational Exposure Limit
- PBT: Persistent, Bioaccumulative and Toxic
- PNEC: Predicted No-Effect Concentration
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- STOT RE: Specific Target Organ Toxicity Repeated Exposure
- STOT SE: Specific Target Organ Toxicity Single Exposure
- vPvB: very Persistent and very Bioaccumulative
- WEL: Workplace Exposure Limit

**INFORMATION ON INGREDIENTS AS REQUIRED BY THE DETERGENTS
REGULATION (EC) NO. 648/2004**

POWERKLEEN

CONC. OF INGREDIENT	CHEMICAL NAME	INCI NAME	PH.EUR. NAME	CAS NO.
10% or more	Water	AQUA	Aqua	7732-18-5
1% or over, but less than 10%	Dipropylene glycol monomethyl ether	PPG-2 METHYL ETHER	-	34590-94-9
1% or over, but less than 10%	Alcohols, C9-11, ethoxylated (9EO)	C9-11 PARETH-9	-	68439-46-3
1% or over, but less than 10%	Quaternary ammonium compounds, benzyl-C12-14 (even-numbered)-alkyldimethyl, chlorides	BENZALKONIUM CHLORIDE	Benzalkonii chloridum	68424-85-1
0.1% or over, but less than 1%	Tetrapotassium pyrophosphate	TETRAPOTASSIUM PYROPHOSPHATE	-	7320-34-5
0.1% or over, but less than 1%	Sodium metasilicate pentahydrate	-	-	10213-79-3
0.1% or over, but less than 1%	1-methoxy propan-2-ol	METHOXYISOPROPANOL	-	107-98-2
0.1% or over, but less than 1%	Perfume	-	-	-
0.1% or over, but less than 1%	(R)-p-mentha-1,8-diene; limonene	LIMONENE	-	5989-27-5
0.1% or over, but less than 1%	Butoxypropan-1-ol	-	-	29387-86-8
0.1% or over, but less than 1%	Colorant	-	-	-
Less than 0.1%	Terpinolene; p-Mentha-1,4(8)-diene	TERPINOLENE	-	586-62-9
Less than 0.1%	Ethanol	ALCOHOL	Alcoholum Ethanolum	64-17-5
Less than 0.1%	Citral; 2,6-Octadienal	CITRAL	-	5392-40-5
Less than 0.1%	2-methoxy propanol	-	-	1589-47-5
Less than 0.1%	Sodium nitrate	SODIUM NITRATE	-	7631-99-4
Less than 0.1%	Mixture of 5-Chloro-2-methyl-3(2H)-isothiazolone (CIT) and 2-Methyl-3(2H)-isothiazolone (MIT) (3:1)	METHYLISOTHIAZOLINONE & METHYLCHLOROISOTHIAZOLINONE	-	55965-84-9 26172-55-4 2682-20-4

--- end of safety datasheet ---