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

1.1 Product identifier

Polarshine Marine Deep Clean

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

1.2.1 Relevant uses

Cleaning agent

1.2.2 Uses advised against

For all uses not specified in SECTION 1.2.1

1.3 Details of the supplier of the safety data sheet

Company

Mirka (UK) Ltd
Saxon House, Shirwell Crescent, Furzton Lake
MK4 1GA Milton Keynes / GREAT BRITAIN
Phone +44 (0)1908 866100
Homepage www.mirka.com
E-mail sales@mirka.com

Address enquiries to

Technical information sales@mirka.com

Safety Data Sheet sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body

For Chemical Emergency: spill, leak, fire, exposure or accident call CHEMTREC day or night:
Within USA and Canada: +1 800 424 9300; Outside USA and Canada: +1 703 527 3887 (collect calls accepted)
CHEMTREC UK: +(44)-870-8200418 (English)
CHEMTREC Ireland (Dublin): +(353)-19014670 (English, Irish Gaelic)
Multilingual response for emergency calls only. Non-emergency calls cannot be serviced at these numbers.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

No classification.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms none

Signal word none

Hazard statements none

Precautionary statements none

Special labelling EUH210 Safety data sheet available on request.

Cleaner, 648/2004/CE, contains: perfumes

2.3 Other hazards

Environmental hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other hazards Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
10 - < 20	Oxalic acid
	CAS: 144-62-7, EINECS/ELINCS: 205-634-3, EU-INDEX: 607-006-00-8
	GHS/CLP: Acute Tox. 4: H302 H312
1 - < 5	2-Butoxyethanol
	CAS: 111-76-2, EINECS/ELINCS: 203-905-0, EU-INDEX: 603-014-00-0, Reg-No.: 01-2119475108-36-XXXX
	GHS/CLP: Acute Tox. 4: H302 - Acute Tox. 3: H331 - Eye Irrit. 2: H319 - Skin Irrit. 2: H315
1 - < 5	Phosphoric acid
	CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
	GHS/CLP: Skin Corr. 1B: H314
	SCL [%]: >= 25: Skin Corr. 1B: H314, 10 - <25: Eye Irrit. 2: H319, 10 - <25: Skin Irrit. 2: H315

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

Inhalation Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion Consult a doctor immediately.
Do not induce vomiting.
Rinse mouth.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in the event of vomiting, risk of product entering the lungs.
Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media ABC-powder.
Foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Carbon dioxide (CO2)

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.

Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
High risk of slipping due to leakage/spillage of product.
Wear suitable protective equipment. For personal protection see SECTION 8.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid spilling in enclosed areas.
Avoid contact with eyes and skin. Use personal protective equipment.

Do not eat, drink or smoke when using this product.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Prevent penetration into the ground.
Keep only in original container.

Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Protect from heat/overheating.
Keep container in a well-ventilated place.
Keep container tightly closed.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Oxalic acid
CAS: 144-62-7, EINECS/ELINCS: 205-634-3, EU-INDEX: 607-006-00-8
Long-term exposure: 1 mg/m³
Short-term exposure (15-minute): 2 mg/m³
2-Butoxyethanol
CAS: 111-76-2, EINECS/ELINCS: 203-905-0, EU-INDEX: 603-014-00-0, Reg-No.: 01-2119475108-36-XXXX
Long-term exposure: 25 ppm, 123 mg/m³, Sk, BMGV
Short-term exposure (15-minute): 50 ppm, 246 mg/m³
Phosphoric acid
CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
Long-term exposure: 1 mg/m³
Short-term exposure (15-minute): 2 mg/m³

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Oxalic acid
CAS: 144-62-7, EINECS/ELINCS: 205-634-3, EU-INDEX: 607-006-00-8
Eight hours: 1 mg/m³, (Oxalic acid)
2-Butoxyethanol
CAS: 111-76-2, EINECS/ELINCS: 203-905-0, EU-INDEX: 603-014-00-0, Reg-No.: 01-2119475108-36-XXXX
Eight hours: 20 ppm, 98 mg/m³, H
Short-term (15-minute): 50 ppm, 246 mg/m³
Phosphoric acid
CAS: 7664-38-2, EINECS/ELINCS: 231-633-2, EU-INDEX: 015-011-00-6, Reg-No.: 01-2119485924-24-XXXX
Eight hours: 1 mg/m³
Short-term (15-minute): 2 mg/m³

DNEL

Substance
Phosphoric acid, CAS: 7664-38-2
Industrial, inhalative, Long-term - local effects, 1 mg/m³
Industrial, inhalative, Long-term - systemic effects, 10.7 mg/m³
general population, oral, Long-term - systemic effects, 0.1 mg/kg bw/day
general population, inhalative, Long-term - local effects, 0.36 mg/m³
general population, inhalative, Long-term - systemic effects, 4.57 mg/m³
2-Butoxyethanol, CAS: 111-76-2
Industrial, inhalative (vapor), Acute - local effects, 246 mg/m³
Industrial, inhalative (vapor), Acute - systemic effects, 1091 mg/m³
Industrial, inhalative (vapor), Long-term - systemic effects, 98 mg/m³
general population, oral, Acute - systemic effects, 26.7 mg/kg bw/day
general population, oral, Long-term - systemic effects, 6.3 mg/kg bw/day
general population, inhalative (vapor), Acute - local effects, 147 mg/m³

general population, inhalative (vapor), Acute - systemic effects, 426 mg/m³
general population, inhalative (vapor), Long-term - systemic effects, 59 mg/m³

PNEC

Substance
Phosphoric acid, CAS: 7664-38-2
There are no PNEC values established for the substance.
2-Butoxyethanol, CAS: 111-76-2
soil, 2.33 mg/kg
sediment (seawater), 3.46 mg/kg
sediment (freshwater), 34.6 mg/kg
sewage treatment plants (STP), 463 mg/l
seawater, 0.88 mg/l
freshwater, 8.8 mg/l
oral (food), 0.02 g/kg

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection
Safety glasses. (EN 166:2001)

Hand protection
The details concerned are recommendations. Please contact the glove supplier for further information.
> 0.4 mm: Nitrile rubber, >480 min (EN 374-1/-2/-3).

Skin protection
Protective clothing (EN 340)

Other
Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Do not inhale vapours.
Avoid contact with eyes and skin.

Respiratory protection
In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.
Short term: filter apparatus, combination filter A-P1. (DIN EN 14387)

Thermal hazards
No information available.

Delimitation and monitoring of the environmental exposition
Comply with applicable environmental regulations limiting discharge to air, water and soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Form	liquid
Color	yellowish
Odor	No information available.
Odour threshold	not applicable
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	102 °C / 215 °F
Flash point [°C]	> 60 °C / > 140 °F
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	2332 Pa (20 °C / 68 °F) 12290 Pa (50 °C / 122 °F)
Density [g/cm³]	1.0765 (20 °C / 68 °F)
Relative density	1.076 (20 °C / 68 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	miscible
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	No information available.
Relative vapour density	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature	235 °C / 455 °F
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong bases.
Strong acids.

10.6 Hazardous decomposition products

No decomposition if used and stored according to specifications.
In the event of fire: See SECTION 5.

SECTION 11: Toxicological information

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

Acute oral toxicity

Product
ATE-mix, oral, > 2000 mg/kg

Substance
Phosphoric acid, CAS: 7664-38-2
LD50, oral, Rat, 1530 mg/kg (Lit.)
Oxalic acid, CAS: 144-62-7
LD50, oral, Rat, 375 mg/kg (IUCLID)
2-Butoxyethanol, CAS: 111-76-2
LD50, oral, Guinea pig, 1414 mg/kg
LD50, oral, Rat, 1746 mg/kg (OECD 401)
ATE, oral, 1200 mg/kg bw

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 mg/kg

Substance
Phosphoric acid, CAS: 7664-38-2
LD50, dermal, Rabbit, 2740 mg/kg (Lit.)
Oxalic acid, CAS: 144-62-7
LD50, dermal, Rat, 20000 mg/kg (IUCLID)
2-Butoxyethanol, CAS: 111-76-2
LD50, dermal, Guinea pig, > 2000 mg/kg (OECD 402)

Acute inhalational toxicity

Product
ATE-mix, inhalation (vapour), > 20 mg/l, 4h

Substance
Phosphoric acid, CAS: 7664-38-2
LC50, inhalative, Rat, > 0.85 mg/l (1h) (Lit.)
2-Butoxyethanol, CAS: 111-76-2
LC0, inhalation (vapour), Guinea pig, > 3.1 mg/l/1h
ATE, inhalation (vapour), 3 mg/L, Category 3,

Serious eye damage/irritation No classification due to substance-specific concentration limits.

Substance
Phosphoric acid, CAS: 7664-38-2
corrosive
2-Butoxyethanol, CAS: 111-76-2
Study, irritant

Skin corrosion/irritation No classification due to substance-specific concentration limits.

Substance
Phosphoric acid, CAS: 7664-38-2
corrosive
2-Butoxyethanol, CAS: 111-76-2
Study, irritant

Respiratory or skin sensitisation Based on the available information, the classification criteria are not fulfilled.

Substance
2-Butoxyethanol, CAS: 111-76-2
dermal, Guinea pig, OECD 406, negativ

Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled.

Substance
2-Butoxyethanol, CAS: 111-76-2
inhalative, non-irritating

Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.

Substance
2-Butoxyethanol, CAS: 111-76-2
LOAEL, oral, Rat, 69 mg/kg bw/day, Study, negativ
LOAEC, inhalative, Rat, 152 mg/m³, Study, negativ

Mutagenicity Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.

Substance
2-Butoxyethanol, CAS: 111-76-2
NOAEL, oral, Rat, 720 mg/kg bw/day, Study, negativ

Carcinogenicity Based on the available information, the classification criteria are not fulfilled.

Substance
2-Butoxyethanol, CAS: 111-76-2
NOAEC, inhalative, Rat, 125 mg/m³, Study, negativ

Aspiration hazard Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.

11.2 Information on other hazards

Endocrine disrupting properties No information available.

Other information none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Phosphoric acid, CAS: 7664-38-2
LC50, (96h), fish, 138 mg/l (Lit.)
Oxalic acid, CAS: 144-62-7
LC50, (48h), fish, 160 mg/l (IUCLID)
EC50, (48h), Daphnia magna, 136.9 mg/l (IUCLID)
2-Butoxyethanol, CAS: 111-76-2
LC50, (96h), Oncorhynchus mykiss, 1474 mg/l (OECD 203)
EC50, (72h), Pseudokirchneriella subcapitata, 1840 mg/l (OECD 201)
EC50, (48h), Daphnia magna, 1550 mg/l (OECD 202)
EC0, (16h), Pseudomonas putida, 700 mg/l (DIN 38412)
NOEL, (21d), Daphnia magna, 100 mg/l (OECD 211)
NOEL, (21d), Brachidanio rerio, > 100 mg/l

12.2 Persistence and degradability

BOD 5: 0.89 (CAS 144-62-7)
BOD 5: 0.32 (CAS 111-76-2)

Behaviour in environment compartments No information available.

Behaviour in sewage plant No information available.

Biological degradability CAS 144-62-7: 37%. 14d
CAS 111-76-2: 96%. 14d
No surfactants are contained.

12.3 Bioaccumulative potential

CAS 144-62-7; CAS 111-76-2: Low bioaccumulation potential.

12.4 Mobility in soil

CAS 111-76-2: Henry=1.621E-1 Pa·m³/mol; Koc=8

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.
Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 070699
200130 detergents other than those mentioned in 20 01 29

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150102

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC); 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2022)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.
- Observe employment restrictions for people	Observe employment restrictions for young people.
- VOC (2010/75/CE)	No information available.

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H331 Toxic if inhaled.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H302+H312 Harmful if swallowed or in contact with skin.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform ChemicaL Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Modified position none