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

1.1 Product identifier

Trade name : perform®

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

Use of the Substance/Mixture : Disinfectants and general biocidal products

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier : Schülke & Mayr GmbH
Robert-Koch-Str. 2

22851 Norderstedt
Germany
Telephone: +49 (0)40/ 52100-0
Telefax: +49 (0)40/ 52100318
mail@schuelke.com
www.schuelke.com

E-mail address of person responsible for the SDS/Contact person : Application Department
+49 (0)40/ 521 00 666
AD@schuelke.com
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

Emergency telephone number : UK Poisons Emergency number: 0870 600 6266

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.
	EUH208: Contains Dipotassium peroxodisulphate. May produce an allergic reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH208 Contains Dipotassium peroxodisulphate. May produce an allergic reaction.

Precautionary statements : P273 Avoid release to the environment.
P280 Wear protective gloves (e.g. butyl rubber) /eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

70693-62-8	Pentapotassium bis(peroxymonosulphate) bis(sulphate)
7727-21-1	dipotassium peroxodisulphate

Additional Labelling

Use biocides safely. Always read the label and product information before use.

Special labelling of certain mixtures : Labelling according to Regulation (EC) No. 648/2004: (5 - 15 % anionic surfactants, < 5 % non-ionic surfactants, < 5% soap, < 5 % Phosphonates, perfumes)

2.3 Other 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.
The product itself does not burn, but it is oxidising.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture with the following substances and non dangerous additives.

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8 274-778-7 - - - 01-2119485567-22-XXXX	Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	45
Sodium dodecyl sulphate	151-21-3 205-788-1 - - - 01-2119489461-32-XXXX	Flam. Sol. 2; H228 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 Aquatic Chronic 3; H412	5 - 15
Tartaric acid	87-69-4 201-766-0 - - - 01-2119537204-47-XXXX	Eye Dam. 1; H318	5 - 15
Sodium benzoate	532-32-1 208-534-8 - - - 01-2119460683-35-XXXX	Eye Irrit. 2; H319	5 - 15
Alcohols, C9-11-iso, C10-rich, ethoxylated	78330-20-8 Polymer - - - - - -	Acute Tox. 4; H302 Eye Dam. 1; H318	< 5
Sodium carbonate	497-19-8 207-838-8 011-005-00-2 01-2119485498-19-XXXX	Eye Irrit. 2; H319	< 5
dipotassium peroxodisulphate	7727-21-1 231-781-8 016-061-00-1 01-2119495676-19-XXXX		< 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : If symptoms persist, call a physician.

If inhaled	:	Move the victim to fresh air and keep him calm. If symptoms persist, call a physician.
In case of skin contact	:	Wash off immediately with plenty of water. If symptoms persist, call a physician.
In case of eye contact	:	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	:	Do NOT induce vomiting. Rinse mouth with water. Give small amounts of water to drink. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Dry powder Foam Water spray jet Carbon dioxide (CO2)
Unsuitable extinguishing media	:	Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	The product itself does not burn, but it is oxidising.
Hazardous combustion products	:	Formation of oxygen and mildly acidic benzoic acid vapour. Carbon monoxide Carbon dioxide (CO2) Sulphur compounds

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.

6.4 Reference to other sections

see Section 8 + 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
Ensure adequate ventilation.

Advice on protection against fire and explosion : The product itself does not burn, but it is slightly oxidizing (active oxygen content ca. 2%). The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, Oxidizing properties).

Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store at room temperature in the original container.

Further information on storage conditions : Keep container tightly closed. Store in a dry place. Do not store at temperatures above 30°C. Recommended storage temperature: 15 - 25°C

Advice on common storage : No materials to be especially mentioned.

7.3 Specific end use(s)

Specific use(s) : none

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

none

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	Workers	Inhalation	Long-term systemic effects	0,28 mg/m3
	Workers	Inhalation	Acute systemic effects	50 mg/m3
	Workers	Inhalation	Long-term local effects	0,28 mg/m3
	Workers	Inhalation	Acute local effects	50 mg/m3
	Workers	Skin contact	Long-term systemic effects	20 mg/kg
	Workers	Skin contact	Acute systemic effects	80 mg/kg
	Workers	Skin contact	Acute local effects	0,449 mg/cm2
Sodium dodecyl sulphate	Workers	Skin contact	Long-term systemic effects	4060 mg/kg
	Workers	Inhalation	Long-term systemic effects	285 mg/m3
Tartaric acid	Workers	Skin contact		2,9 mg/kg
	Workers	Inhalation		5,2 mg/m3
Sodium benzoate	Workers	Skin contact	Long-term systemic effects	34,7 mg/cm2
	Workers	Skin contact	Long-term local effects	4,5 mg/cm2
	Workers	Inhalation	Long-term systemic effects	10,4 mg/m3
	Workers	Inhalation	Long-term local effects	6,3 mg/m3
Sodium carbonate	Workers	Inhalation	Long-term exposure	10 mg/m3
dipotassium peroxodisulphate	Workers	Inhalation	Long-term systemic effects	2,06 mg/m3
	Workers	Inhalation	Acute systemic effects	590 mg/m3
	Workers	Inhalation	Long-term local effects	2,06 mg/m3
	Workers	Skin contact	Long-term systemic effects	18,2 mg/kg
	Workers	Skin contact	Acute systemic effects	400 mg/kg
	Workers	Skin contact	Long-term local effects	0,102 mg/cm2
	Workers	Skin contact	Acute local effects	2,248 mg/cm2

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	Fresh water	0,022 mg/l

	Marine water	0,00222 mg/l
	Fresh water sediment	0,017 mg/kg
	Marine sediment	0,00173 mg/kg
	Soil	0,885 mg/kg
	Sewage treatment plant	108 mg/l
	Intermittent use/release	0,0109 mg/l
	Oral	44,44 mg/kg
Sodium dodecyl sulphate	Fresh water	0,137 mg/l
	Marine water	0,0137 mg/l
	Fresh water sediment	4,82 mg/kg
	Marine sediment	0,482 mg/kg
	Soil	0,882 mg/kg
	Intermittent use/release	0,055 mg/l
Tartaric acid	Sewage treatment plant	10 mg/l
	Fresh water	0,3125 mg/l
	Marine water	0,3125 mg/l
	Fresh water sediment	1,141 mg/kg
	Marine sediment	1,141 mg/kg
	Soil	0,0449 mg/kg
Sodium benzoate	Fresh water	0,13 mg/l
	Marine water	0,013 mg/l
	Intermittent use/release	0,305 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	1,76 mg/kg
	Marine sediment	0,176 mg/kg
	Soil	0,276 mg/kg
	Oral	300 mg/kg food
dipotassium peroxodisulphate	Fresh water	0,0763 mg/l
	Marine water	0,011 mg/l
	Fresh water sediment	0,275 mg/kg
	Soil	0,015 mg/kg
	Sewage treatment plant	3,6 mg/l
	Intermittent use/release	0,763 mg/l
	Marine sediment	0,0396 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection
Directive : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Remarks : Prolonged contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.

Skin and body protection : Work uniform or laboratory coat.

Respiratory protection : Breathing apparatus only if aerosol or dust is formed.

Half mask with a particle filter P2 (EN 143)

Protective measures : Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	granular
Colour	:	white
Odour	:	pleasant
Odour Threshold	:	not determined
pH	:	ca. 4 (20 °C) Concentration: 5 g/l in water
Melting point/freezing point	:	No data available
Decomposition temperature		No data available
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Vapour density	:	Not applicable
Bulk density	:	700 - 800 kg/m³
Solubility(ies)		
Water solubility	:	ca. 200 g/l (20 °C)
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	Not applicable

Explosive properties	:	No data available
Oxidizing properties	:	The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, Oxidizing properties).

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Slightly exothermic autodecomposition (> 130°C) if strongly heated

10.4 Conditions to avoid

Conditions to avoid	:	Protect from frost, heat and sunlight.

10.5 Incompatible materials

Materials to avoid	:	Do not mix with other products.

10.6 Hazardous decomposition products

Oxygen

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	LD50 (Rat): 2.430 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: > 10 mg/l
Acute dermal toxicity	:	Acute toxicity estimate: > 10.000 mg/kg

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Acute oral toxicity	:	LD50 (Rat): 500 mg/kg Method: OECD Test Guideline 423
Acute inhalation toxicity	:	LC0 (Rat): > 5 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD0 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Sodium dodecyl sulphate:

Acute oral toxicity : LD50 (Rat): > 500 - < 2.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : Method: Expert judgement and weight of evidence determination.
Remarks: Harmful by inhalation.

Acute dermal toxicity : LD50: > 2.000 mg/kg
Method: Expert judgement and weight of evidence determination.

Tartaric acid:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Sodium benzoate:

Acute oral toxicity : LD50 Oral (Rat): 4.070 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Acute oral toxicity : LD50 (Rat): 500 - 2.000 mg/kg
Method: Calculated value
Remarks: Harmful if swallowed.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Sodium carbonate:

Acute oral toxicity : LD50 (Rat): 2.800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2,3 mg/l
Exposure time: 2 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

dipotassium peroxodisulphate:

Acute oral toxicity : LD50 (Rat, male): 742 mg/kg
Method: OECD Test Guideline 401
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 5,1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Expert judgement

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Expert judgement

Skin corrosion/irritation

Product:

Assessment : Causes severe skin burns and eye damage.
Method : Calculation method

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species : Rabbit
Method : OECD Test Guideline 404
Result : Causes burns.
Remarks : Extremely corrosive and destructive to tissue.

Sodium dodecyl sulphate:

Method : OECD Test Guideline 404
Result : irritating

Tartaric acid:

Remarks : May cause skin irritation in susceptible persons.

Sodium benzoate:

Species : Rabbit
Assessment : No skin irritation

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Species : Rabbit
Result : No skin irritation

Sodium carbonate:

Remarks : May cause skin irritation in susceptible persons.

dipotassium peroxodisulphate:

Result : Skin irritation

Serious eye damage/eye irritation

Product:

Assessment : Causes serious eye damage.
Method : Calculation method

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irreversible effects on the eye

Sodium dodecyl sulphate:

Method : OECD Test Guideline 405
Result : Risk of serious damage to eyes.

Tartaric acid:

Method : OECD Test Guideline 437
Result : Risk of serious damage to eyes.

Sodium benzoate:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Causes serious eye irritation.

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Species : Rabbit
Method : OECD Test Guideline 405
Result : May cause irreversible eye damage.

Sodium carbonate:

Assessment : Causes serious eye irritation.

dipotassium peroxodisulphate:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Eye irritation

Respiratory or skin sensitisation

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Test Type	:	Maximisation Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.
Remarks	:	Based on available data, the classification criteria are not met.

Sodium dodecyl sulphate:

Remarks	:	Did not cause sensitisation on laboratory animals.

Tartaric acid:

Remarks	:	No data available

Sodium benzoate:

Remarks	:	May cause sensitisation of susceptible persons.

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Remarks	:	No data available

Sodium carbonate:

Remarks	:	No data available

dipotassium peroxodisulphate:

Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitisation by skin contact.
Exposure routes	:	inhalation (dust/mist/fume)
Result	:	Respiratory sensitization

Germ cell mutagenicity

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Genotoxicity in vitro	:	Method: OECD Test Guideline 471 Result: Not mutagenic in Ames Test
Genotoxicity in vivo	:	Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 474 Remarks: negative
Germ cell mutagenicity- Assessment	:	Not mutagenic in Ames Test

Sodium dodecyl sulphate:

Genotoxicity in vitro	:	Method: OECD Test Guideline 471 Result: Non mutagenic
Germ cell mutagenicity- Assessment	:	Non mutagenic

Tartaric acid:

Germ cell mutagenicity- Assessment	:	Not mutagenic in Ames Test

Sodium benzoate:

Genotoxicity in vitro	:	Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Method: OECD Test Guideline 471 Result: Non mutagenic
Germ cell mutagenicity- Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Germ cell mutagenicity- Assessment	:	No data available

Sodium carbonate:

Germ cell mutagenicity- Assessment	:	Contains no ingredient listed as a mutagen

dipotassium peroxodisulphate:

Genotoxicity in vitro	:	Test Type: Microbial mutagenesis assay (Ames test) Result: negative Remarks: Based on data from similar materials
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Application Route: Intraperitoneal injection Result: Based on data from similar materials Remarks: negative

Carcinogenicity

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

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

Sodium dodecyl sulphate:

Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen.

Tartaric acid:

Carcinogenicity - Assessment	:	No data available

Sodium benzoate:

Carcinogenicity - Assessment	:	Did not show carcinogenic effects in animal experiments.

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Carcinogenicity - Assessment	:	No data available

Sodium carbonate:

Carcinogenicity - Assessment	:	No evidence of carcinogenicity in animal studies.

dipotassium peroxodisulphate:

Species	:	Mouse
Application Route	:	Dermal exposure
Exposure time	:	52 weeks
Method	:	OECD Test Guideline 451
Result	:	negative
Remarks	:	Based on data from similar materials

Reproductive toxicity

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat General Toxicity Maternal: NOAEL: 250 mg/kg body weight Teratogenicity: NOAEL: >= 750 mg/kg body weight Method: OECD Test Guideline 414 Test Type: Embryo-foetal development Species: Rat General Toxicity Maternal: LOAEL: 750 mg/kg body weight Teratogenicity: LOAEL: > 750 mg/kg body weight Method: OECD Test Guideline 414
Reproductive toxicity - Assessment	:	Based on available data, the classification criteria are not met.

Sodium dodecyl sulphate:

Reproductive toxicity - Assessment : No toxicity to reproduction

Tartaric acid:

Reproductive toxicity - Assessment : No data available

Sodium benzoate:

Reproductive toxicity - Assessment : No data available

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Reproductive toxicity - Assessment : No data available

Sodium carbonate:

Reproductive toxicity - Assessment : Contains no ingredient listed as toxic to reproduction

dipotassium peroxodisulphate:

Effects on fertility : Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure

Components:

Sodium dodecyl sulphate:

Assessment : May cause respiratory irritation.
Remarks : Expert judgement and weight of evidence determination.

Tartaric acid:

Remarks : No data available

Sodium benzoate:

Remarks : No data available

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Remarks : No data available

Sodium carbonate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

dipotassium peroxodisulphate:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Components:

Sodium dodecyl sulphate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Tartaric acid:

Remarks : No data available

Sodium benzoate:

Remarks : No data available

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Remarks : No data available

Sodium carbonate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species	:	Rat
NOAEL	:	200 mg/kg
LOAEL	:	600 mg/kg
Application Route	:	Oral
Exposure time	:	90-day
Method	:	OECD Test Guideline 408

Species	:	Rat
LOAEL	:	2,73 mg/kg
Application Route	:	inhalation (dust/mist/fume)
Exposure time	:	14-days
Method	:	OECD Test Guideline 412

Sodium benzoate:

Species	:	Rat, male and female
NOAEL	:	1.000 mg/kg
Application Route	:	Oral

dipotassium peroxodisulphate:

Species	:	Rat
NOAEL	:	1.000 mg/kg
LOAEL	:	3.000 mg/kg
Application Route	:	Ingestion
Exposure time	:	90-day
Method	:	OECD Test Guideline 408

Aspiration toxicity

No data available

Further information

Product:

Remarks	:	No data available

Components:

Sodium carbonate:

Remarks	:	Dust contact with the eyes can lead to mechanical irritation.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 3,5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	ErC50 (Pseudokirchneriella subcapitata (microalgae)): > 1 mg/l Exposure time: 96 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic tox-	:	NOEC: 0,444 mg/l

icity)		Exposure time: 37 d Species: Cyprinodon variegatus (sheepshead minnow)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,267 mg/l Exposure time: 24 h Species: Daphnia (water flea)

Sodium dodecyl sulphate:

Toxicity to fish	:	LC50 : > 10 - < 100 mg/l Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 : > 1 - < 10 mg/l
Toxicity to algae	:	EC50 : > 100 mg/l
Toxicity to fish (Chronic toxicity)	:	NOEC: > 1 - < 10 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: <= 1 mg/l Species: Ceriodaphnia dubia (water flea)

Tartaric acid:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 51 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Sodium benzoate:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae	:	IC50 (Pseudokirchneriella subcapitata (microalgae)): 24,8 mg/l Exposure time: 72 h

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Toxicity to fish	:	LC50 (Leuciscus idus): > 100 mg/l Exposure time: 96 h
Toxicity to daphnia and other	:	EC50 : > 100 mg/l

aquatic invertebrates — Exposure time: 48 h

Toxicity to algae : EC50 : > 100 mg/l
Exposure time: 72 h

Sodium carbonate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 200 - 227 mg/l
Exposure time: 48 h

Toxicity to algae : Remarks: No data available

dipotassium peroxodisulphate:

Toxicity to fish : LC50 (Fish): 107,6 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 120 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae : (algae): 320 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

(algae): 32 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to microorganisms : (Pseudomonas putida): 36 mg/l
Exposure time: 18 h
Remarks: Based on data from similar materials

12.2 Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.
Method: OECD 301D / EEC 84/449 C6

Chemical Oxygen Demand (COD) : 7.100 mg/l
Test substance: 1 % solution

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Sodium dodecyl sulphate:

Biodegradability : Result: Readily biodegradable, according to appropriate OECD test.

Tartaric acid:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 306

Sodium benzoate:

Biodegradability : Result: rapidly biodegradable
Biodegradation: 84 %
Exposure time: 10 d
Method: OECD Test Guideline 301C

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Biodegradability : Result: Readily biodegradable, according to appropriate OECD test.

Sodium carbonate:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Bioaccumulation : Remarks: No data available

Sodium dodecyl sulphate:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Tartaric acid:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Sodium benzoate:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Partition coefficient: n-octanol/water : log Pow: -2,27

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Bioaccumulation : Remarks: According to experience not expected

Sodium carbonate:

Bioaccumulation : Remarks: Does not bioaccumulate.

dipotassium peroxodisulphate:

Bioaccumulation : Remarks: Not applicable

12.4 Mobility in soil

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Mobility : Remarks: No data available

Sodium dodecyl sulphate:

Mobility : Remarks: No data available

Tartaric acid:

Mobility : Remarks: No data available

Sodium benzoate:

Mobility : Remarks: No data available

Alcohols, C9-11-iso, C10-rich, ethoxylated:

Mobility : Remarks: Adsorbs on soil.

Sodium carbonate:

Mobility : Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : 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..

12.6 Other adverse effects

Product:

Additional ecological information : No data is available on the product itself.

Components:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Can be incinerated or landfilled together with household waste in compliance with the regulations, and after consultation with the waste disposal services.
Contaminated packaging	:	Take empty packaging to the recycling plant.
Waste key for the unused product(Group)	:	The waste producer itself must, in consultation with the appropriate authorities and a waste disposal company, obtain a waste code from the EWC (European Waste Catalogue)

SECTION 14: Transport information

14.1 UN number

IMDG	:	UN 3260
IATA	:	UN 3260

14.2 UN proper shipping name

IMDG	:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Pentapotassium bis(peroxymonosulphate) bis(sulphate))
IATA	:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Pentapotassium bis(peroxymonosulphate) bis(sulphate))

14.3 Transport hazard class(es)

IMDG	:	8
IATA	:	8

14.4 Packing group

IMDG

Packing group	:	III
Labels	:	8
EmS Code	:	F-A, S-B

IATA (Cargo)

Packing instruction (cargo aircraft)	:	864
Packing group	:	III
Labels	:	Corrosive

IATA (Passenger)

Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.
For personal protection see section 8.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Volatile organic compounds : none, Directive 2010/75/EC on the limitation of emissions of volatile organic compounds

Other regulations:

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.

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products

15.2 Chemical safety assessment

Exempt

SECTION 16: Other information

Full text of H-Statements

H228	:	Flammable solid.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.

H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Sol.	:	Flammable solids
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No. 1272/2008

Skin Corr. 1B, H314	:	Calculation method
Eye Dam. 1, H318	:	Calculation method
Aquatic Chronic 3, H412	:	Calculation method
, EUH208	:	Calculation method

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.