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

1.1 Product identifier

Trade name : aspirmatic®

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

Use of the Substance/Mixture : Disinfectants

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 8800
ADHI@schuelke.com
(Schülke & Mayr UK Ltd.: +44-1142543500)

1.4 Emergency telephone number

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

Emergency telephone number : +49 (0)40/ 52100-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.

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.

Precautionary statements	:	P280	Wear protective gloves/ protective clothing/ 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/shower.
		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/doctor.
		P501	Dispose of contents/ container to an approved waste disposal plant.
Special labelling of certain mixtures	:	Labelling according to Regulation (EC) No. 648/2004: (< 5 % non-ionic surfactants, < 5% soap, 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.
No special risks known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

Hazardous components

Chemical name	Index-Number CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Dimethyldioctylammonium chloride	- - - 5538-94-3 226-901-0	Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400	5 - 8
Ethanol	603-002-00-5 64-17-5 200-578-6 01-2119457610-43-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319	< 5
Alcohol alkoxylated	- - - 68551-13-3 - - -	Aquatic Acute 1; H400	< 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Take off all contaminated clothing immediately.

In case of skin contact	:	Wash off immediately with plenty of water. If symptoms persist, call a physician.
In case of eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If eye irritation persists, consult a specialist.
If swallowed	:	Do NOT induce vomiting. Drink water as a precaution. If symptoms persist, call a physician.

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	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	No information available.

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	:	Increased risk of slipping in the presence of leaked / spilled product. Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions	:	Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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	:	Prepare the working solution as given on the label(s) and/or

the user instructions.

Advice on protection against fire and explosion : No special protective measures against fire required.

Hygiene measures : Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Recommended storage temperature: 5 - 25°C

Further information on storage conditions : Keep away from heat. Keep container tightly closed.

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

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Ethanol	64-17-5	Permissible exposure limit	500 ppm 960 mg/m3	TRGS 900
		Ceiling Limit Value	1.000 ppm 1.920 mg/m3	TRGS 900
		Permissible exposure limit	1.000 ppm 1.900 mg/m3	OSHA

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Ethanol	Workers	Inhalation	Acute effects, Local effects	1900 mg/m3
	Workers	Skin contact	Chronic effects	343 mg/kg
	Workers	Inhalation	Chronic effects	950 mg/m3

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

Substance name	Environmental Compartment	Value
Ethanol	Fresh water	0,96 mg/l
	Marine water	0,79 mg/l
	Fresh water sediment	3,6 mg/kg
	Soil	0,63 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.
Remarks	:	Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm) made by KCL or gloves from other manufacturers offering the same protection. 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.
Protective measures	:	Avoid contact with skin and eyes.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	blue
Odour	:	odourized
Odour Threshold	:	not determined
pH	:	6,5 - 7,5, 20 °C, concentrate
Melting point/freezing point	:	ca. 0 °C
Decomposition temperature	:	Not applicable
Boiling point/boiling range	:	ca. 100 °C
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	ca. 0,99 g/cm3, 20 °C
Solubility(ies)		
Water solubility	:	in all proportions , 20 °C
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

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

None reasonably foreseeable.

10.4 Conditions to avoid

Protect from frost, heat and sunlight.

10.5 Incompatible materials

None reasonably foreseeable.,

10.6 Hazardous decomposition products

None reasonably foreseeable.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5.000 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: > 50 mg/l
Acute dermal toxicity	:	Acute toxicity estimate: > 15.000 mg/kg

Skin corrosion/irritation

Product:

Causes severe skin burns and eye damage., Calculation method

Serious eye damage/eye irritation

Product:

Causes serious eye damage., Calculation method

Respiratory or skin sensitisation

Components:

Dimethyldioctylammonium chloride:
No data available
Ethanol:
Did not cause sensitisation on laboratory animals.Maximisation Test, Guinea pig
Alcohol alkoxylated:
No data available

Germ cell mutagenicity

Components:

Dimethyldioctylammonium chloride:

Germ cell mutagenicity- Assessment	:	No data available

Ethanol:

Genotoxicity in vitro	:	OECD Test Guideline 471, Not mutagenic in Ames Test
Genotoxicity in vivo	:	not mutagenic
Germ cell mutagenicity- Assessment	:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Alcohol alkoxylated:

Germ cell mutagenicity- Assessment	:	No data available

Carcinogenicity

Components:

Dimethyldioctylammonium chloride:
Carcinogenicity - Assessment : No data available

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

Alcohol alkoxylated:
Carcinogenicity - Assessment : No data available

Reproductive toxicity

Components:

Dimethyldioctylammonium chloride:
Reproductive toxicity - Assessment : No data available

Ethanol:
Effects on foetal development : Rat, Oral, NOAEL: 2.000 mg/kg
Reproductive toxicity - Assessment : In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance.

Alcohol alkoxylated:
Reproductive toxicity - Assessment : No data available

STOT - single exposure

Components:

Ethanol:
No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

Components:

Ethanol:
Rat, NOAEL: 1.730 mg/kg, LOAEL: 3.160 mg/kg, Oral90 d

Aspiration toxicity

No data available

Further information

Product:

No data is available on the product itself.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to bacteria : EC50 : 520 mg/l , OECD 209

Components:

Dimethyldioctylammonium chloride:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss): 0,35 mg/l, 96 h
Toxicity to daphnia and other aquatic invertebrates	:	No data available
Toxicity to algae	:	No data available
M-Factor (Acute aquatic toxicity)	:	1

Ethanol:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 8.140 mg/l, 48 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 5.000 mg/l, 48 h
Toxicity to algae	:	IC50 (Scenedesmus quadricauda (Green algae)): > 100 mg/l, 72 h

Alcohol alkoxylated:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss): 0,61 - 0,75 mg/l, 96 h, static test
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna): 0,17 - 0,25 mg/l, 48 h, static test
Toxicity to bacteria	:	No data available

12.2 Persistence and degradability

Product:

Biodegradability	:	Readily biodegradable., OECD 301D / EEC 84/449 C6
Chemical Oxygen Demand (COD)	:	ca. 2.630 mg/l ,1 % solution

Components:

Dimethyldioctylammonium chloride:

Biodegradability	:	biodegradable

Ethanol:

Biodegradability	:	Readily biodegradable.

12.3 Bioaccumulative potential

Components:

Dimethyldioctylammonium chloride:

Bioaccumulation	:	No data available

Ethanol:

Bioaccumulation	:	Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	:	log Pow: -0,14, calculated

Alcohol alkoxylated:

Bioaccumulation	:	No data available

12.4 Mobility in soil

Components:

Dimethyldioctylammonium chloride:

Mobility	:	No data available

Ethanol:

Mobility	:	No data available

Alcohol alkoxylated:

Mobility	:	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 : none

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of the product according to the defined EWC (European Waste Code) No.

Contaminated packaging : Take empty packaging to the recycling plant.

Waste key for the unused product : European waste catalog (EWC) 070601

Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1903

IMDG : UN 1903

IATA : UN 1903

14.2 UN proper shipping name

ADR : DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Dimethyldioctylammonium chloride)

IMDG : DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Dimethyldioctylammonium chloride)

IATA : Disinfectant, liquid, corrosive, n.o.s. (Dimethyldioctylammonium chloride)

14.3 Transport hazard class(es)

ADR : 8

IMDG : 8

IATA : 8

14.4 Packing group

ADR

Packing group : III

Classification Code : C9

Hazard Identification Number : 80

Labels	:	8
Tunnel restriction code	:	E

IMDG

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

IATA

Packing instruction (cargo aircraft)	:	856
Packing group	:	III
Labels	:	Corrosive

14.5 Environmental hazards

ADR

Environmentally hazardous	:	no

IMDG

Marine pollutant	:	no

14.6 Special precautions for user

For personal protection see section 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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	:	Volatile organic compounds (VOC) content: < 5 %, Directive 2010/75/EC on the limitation of emissions of volatile organic compounds
Other regulations	:	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.

15.2 Chemical safety assessment

Exempt

SECTION 16: Other information

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H319	:	Causes serious eye irritation.
H400	:	Very toxic to aquatic life.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Acute aquatic toxicity
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion

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; 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

Changes compared with the previous edition!!!

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.