



SAFETY DATA SHEET

S1 HARD SURFACE CLEANER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name S1 HARD SURFACE CLEANER
Internal Id C886

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

Identified uses Cleaning agent.

1.3. Details of the supplier of the safety data sheet

Supplier ARROW SOLUTIONS
RAWDON ROAD
MOIRA
SWADLINCOTE
DERBYSHIRE
DE12 6DA
TEL: +44 (0)1283 221044
EMERGENCY: +44 (0) 777 8505 330
FAX: +44 (0)1283 225731
sales@arrowchem.com

1.4. Emergency telephone number

+44 (0) 777 8505 330

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Eye Dam. 1 - H318
Environment	Aquatic Acute 1 - H400

Classification (1999/45/EEC)

Xi; R38, R41. N; R50.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Contains ALCOHOL ETHOXYLATE
ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE

Detergent Labelling:

15 - < 30%	non-ionic surfactants
5 - < 15%	amphoteric surfactants
< 5%	disinfectants
	perfumes
Contains	BUTYLPHENYL METHYLPROPIONAL, CINNAMYL ALCOHOL, LINALOOL

Label In Accordance With (EC) No. 1272/2008

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Signal Word Danger

Hazard Statements

H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H400 Very toxic to aquatic life.

Precautionary Statements

P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

ALCOHOL ETHOXYLATE		5-10%
CAS-No.: 24938-91-8	EC No.:	
Classification (EC 1272/2008) Eye Dam. 1 - H318	Classification (67/548/EEC) Xi;R41.	
ALCOHOL ETHOXYLATE		5-10%
CAS-No.: 9043-30-5	EC No.:	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Eye Dam. 1 - H318	Classification (67/548/EEC) Xn;R22. Xi;R41.	
ALCOHOL ALKOXYLATE		5-10%
CAS-No.:	EC No.:	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36/38.	
COCO AMIDO PROPYL BETAINE		5-10%
CAS-No.: 61789-40-0	EC No.: 263-058-8	
Classification (EC 1272/2008) Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36.	

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ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE		1-5%
CAS-No.: 68424-85-1	EC No.: 270-325-2	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Aquatic Acute 1 - H400	Classification (67/548/EEC) Xn;R21/22. C;R34. N;R50.	
TETRASODIUM GLUTAMATE		1-5%
CAS-No.: 51981-21-6	EC No.: 257-573-7	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36/38.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move into fresh air and keep at rest.

Ingestion

Rinse mouth thoroughly. DO NOT INDUCE VOMITING! Get medical attention if any discomfort continues.

Skin contact

Rinse with water. Contact physician if discomfort continues.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation.

No specific symptoms noted.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrous gases (NO_x).

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes and prolonged skin contact.

6.2. Environmental precautions

Do not discharge onto the ground or into water courses.

6.3. Methods and material for containment and cleaning up

Absorb with inert, damp, non-combustible material, then flush area with water.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed original container at temperatures between 0°C and 40°C.

Storage Class

Chemical storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2. Exposure controls

Protective equipment



Hand protection

Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Rubber, neoprene or PVC.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hygiene measures

Wash contaminated clothing before reuse. Wash hands after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Blue.
Odour	Pleasant, agreeable.
Solubility	Soluble in water.
Initial boiling point and boiling range	~100°C
Relative density	1.046 @ 20°C
pH-Value, Conc. Solution	5.0

9.2. Other information

Not determined.

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

No specific conditions are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials To Avoid

No specific, or groups of materials are likely to react to produce a hazardous situation.

10.6. Hazardous decomposition products

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrous gases (NO_x).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged contact may cause dryness of the skin.

Eye contact

May cause severe irritation to eyes.

Toxicological information on ingredients.

ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE (CAS: 68424-85-1)

Toxic Dose 1 - LD 50

795 mg/kg (oral rat)

Toxic Dose 2 - LD 50

1560 mg/kg (skn-rat)

ALCOHOL ETHOXYLATE (CAS: 24938-91-8)

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is very toxic to aquatic organisms.

12.1. Toxicity

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Ecological information on ingredients.

ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE (CAS: 68424-85-1)

Acute Toxicity - Fish

LC50 96 hours ~ 1.7 mg/l Onchorhynchus mykiss (Rainbow trout)

EC 50, 48 Hrs, Daphnia, mg/l

0.03 mg/l

Acute Toxicity - Aquatic Plants

EC50 96 hours ~ 0.06 mg/l Selenastrum capricornutum

ALCOHOL ETHOXYLATE (CAS: 24938-91-8)

LC 50, 96 Hrs, Fish mg/l

1 - 10 mg/l

EC 50, 48 Hrs, Daphnia, mg/l

1 -10 mg/l

12.2. Persistence and degradability

Degradability

The product is expected to be biodegradable.

Ecological information on ingredients.

ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE (CAS: 68424-85-1)

Chemical Oxygen Demand

~ 1.13 g O₂/g substance

12.3. Bioaccumulative potential

Bioaccumulative potential

The product is not bioaccumulating.

Ecological information on ingredients.

ALKYL DIMETHYLBENZYLAMMONIUM CHLORIDE (CAS: 68424-85-1)

Partition coefficient

log Kow < 1.58

12.4. Mobility in soil

Mobility:

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

14.2. UN proper shipping name

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkyl dimethylbenzylammonium chloride)

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14.3. Transport hazard class(es)

ADR/RID/ADN Class	9
ADR/RID/ADN Class	Class 9: Other dangerous substances.
IMDG Class	9
ICAO Class/Division	9
Transport Labels	



14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6. Special precautions for user

Tunnel Restriction Code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

Chemicals (Hazard Information & Packaging) Regulations.

Statutory Instruments

Control of Substances Hazardous to Health.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

SECTION 16: OTHER INFORMATION

Revision Date	04/10/2012
Revision	2.0
Supersedes date	28/02/2011

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Risk Phrases In Full

R34	Causes burns.
R22	Harmful if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.
R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R50	Very toxic to aquatic organisms.

Hazard Statements In Full

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.