



SAFETY DATA SHEET

S4 MULTI PURPOSE CATERING CLEANER

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

1.1. Product identifier

Product name S4 MULTI PURPOSE CATERING CLEANER
Internal Id C888

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	Eye Dam. 1 - H318
Environment	Not classified.

Classification (1999/45/EEC)

Xi;R41.

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

2.2. Label elements

Contains ALCOHOL ETHOXYLATE
2-AMINOETHANOL

Detergent Labelling:

5 - < 15%	non-ionic surfactants
< 5%	amphoteric surfactants

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

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Signal Word	Danger
Hazard Statements	H318 Causes serious eye damage.
Precautionary Statements	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

(C9-C11) ALKYL ALCOHOL ETHOXYLATE 1-5%	
CAS-No.: 68439-45-2 EC No.:	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Eye Dam. 1 - H318	Classification (67/548/EEC) Xn;R22. Xi;R41.
ALCOHOL ETHOXYLATE 1-5%	
CAS-No.: 68439-46-3 EC No.:	
Classification (EC 1272/2008) Eye Dam. 1 - H318	Classification (67/548/EEC) Xi;R41.
2-AMINOETHANOL 1-5%	
CAS-No.: 141-43-5 EC No.: 205-483-3	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1B - H314 STOT SE 3 - H335	Classification (67/548/EEC) C;R34 Xn;R20/21/22
COCO AMIDO PROPYL BETAINE 1-5%	
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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TETRASODIUM GLUTAMATE	0-1%
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.
CITRIC ACID ANHYDROUS	0-1%
CAS-No.: 77-92-9	EC No.: 201-069-1
Classification (EC 1272/2008) Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36.

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.

Skin contact

Wash skin with soap and water. Get medical attention if irritation persists after washing.

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

Coughing, chest tightness, feeling of chest pressure.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause severe irritation to eyes.

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: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

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

Corrosive 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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
2-AMINOETHANOL	WEL	1 ppm(Sk)	2.5 mg/m3(Sk)	3 ppm(Sk)	7.6 mg/m3(Sk)	

WEL = Workplace Exposure Limit.

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2-AMINOETHANOL (CAS: 141-43-5)

DNEL

Industry	Dermal	Long Term	Systemic Effects	1 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	3.3 mg/kg/day
Industry	Inhalation.	Long Term	Local Effects	3.3 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects	0.24 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	2 mg/kg/day
Consumer	Inhalation.	Long Term	Local Effects	2 mg/kg/day
Consumer	Oral	Long Term	Systemic Effects	3.75 mg/kg/day

PNEC

Freshwater	0.085	mg/l
Marinewater	0.0085	mg/l
Intermittent release	0.025	mg/l
Sediment (Freshwater)	0.425	mg/kg
Sediment (Marinewater)	0.0425	mg/kg
Soil	0.035	mg/kg
STP	100	mg/l

COCO AMIDO PROPYL BETAINE (CAS: 61789-40-0)

DNEL

Industry	Dermal	Long Term	Systemic Effects	12.5
Consumer	Dermal	Long Term	Systemic Effects	7.5 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	44 mg/m3

PNEC

Freshwater	0.0135	mg/l
STP	300	mg/l
Soil	0.8	mg/kg
Sediment (Marinewater)	0.1	mg/kg
Sediment (Freshwater)	1	mg/kg
Marinewater	0.00135	mg/l

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, tight fitting safety glasses where splashing is 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	Clear liquid.
Colour	Yellow.
Odour	Detergent.
Relative density	1.014 @ 25°C
pH-Value, Conc. Solution	10.7

9.2. Other information

Not determined.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

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10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

There are no known conditions that 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: Ammonia or amines. 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

May cause defatting of the skin, but is not an irritant.

Eye contact

Risk of serious damage to eyes.

Toxicological information on ingredients.

2-AMINOETHANOL (CAS: 141-43-5)

Acute toxicity:

Acute Toxicity (Oral LD50)

1515 mg/kg Rat

Acute Toxicity (Dermal LD50)

2504 mg/kg Rabbit

(C9-C11) ALKYL ALCOHOL ETHOXYLATE (CAS: 68439-45-2)

Acute toxicity:

Acute Toxicity (Oral LD50)

2950 mg/kg Rat

CITRIC ACID ANHYDROUS (CAS: 77-92-9)

Toxic Dose 1 - LD 50

6730 mg/kg (oral rat)

ALCOHOL ETHOXYLATE (CAS: 68439-46-3)

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

Toxic Dose 2 - LD 50

>2000 mg/kg (skn-rat)

TETRASODIUM GLUTAMATE (CAS: 51981-21-6)

Toxic Dose 1 - LD 50

>2000 mg/kg (oral rat)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

12.1. Toxicity

Acute Toxicity - Fish

Not determined.

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Ecological information on ingredients.

2-AMINOETHANOL (CAS: 141-43-5)

Acute Toxicity - Fish

LC50 96 hours 349 mg/l Cyprinus carpio (Common carp)

LC50 96 hours 170 mg/l Carassius auratus (Goldfish)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 65 mg/l Daphnia magna

Acute Toxicity - Aquatic Plants

EC50 72 hours 2.5 mg/l Selenastrum capricornutum

EC50 72 hours 22 mg/l Scenedesmus subspicatus

Acute Toxicity - Microorganisms

EC20 30 min > 1000 mg/l Activated sludge

EC50 3 hours < 1000 mg/l Activated sludge

NOEC 21 days 0.85 mg/l Daphnia magna

COCO AMIDO PROPYL BETAINE (CAS: 61789-40-0)

Acute Toxicity - Fish

LC50 96 hours 1.11 mg/l Pimephales promelas (Fat-head Minnow)

LC50 96 hours 1.1 mg/l Cyprinodon variegatus (Sheepshead minnow)

EC 50, 48 Hrs, Daphnia, mg/l

21.5 mg/l

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 1.9 mg/l Freshwater invertebrates

EC50 0.3 mg/l Freshwater invertebrates

CITRIC ACID ANHYDROUS (CAS: 77-92-9)

LC 50, 96 Hrs, Fish mg/l

440 - 706

ALCOHOL ETHOXYLATE (CAS: 68439-46-3)

LC 50, 96 Hrs, Fish mg/l

2.4 mg/l

EC 50, 48 Hrs, Daphnia, mg/l

1 - 10 mg/l

IC 50, 72 Hrs, Algae, mg/l

1 -10 mg/l

TETRASODIUM GLUTAMATE (CAS: 51981-21-6)

Acute Toxicity - Fish

LC50 96 hours > 100 mg/l Onchorhynchus mykiss (Rainbow trout)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l Daphnia magna

12.2. Persistence and degradability

Degradability

The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product is not bioaccumulating.

Ecological information on ingredients.

2-AMINOETHANOL (CAS: 141-43-5)

Partition coefficient

log Kow -1.91

COCO AMIDO PROPYL BETAINE (CAS: 61789-40-0)

Bioaccumulation factor

BCF < 71

ALCOHOL ETHOXYLATE (CAS: 68439-46-3)

Bioaccumulation factor

BCF < 500

12.4. Mobility in soil

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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

General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Transport Labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

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.

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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 21/02/2013

Revision 2.0

Supersedes date 23/03/2010

Risk Phrases In Full

R34 Causes burns.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R36 Irritating to eyes.
R37 Irritating to respiratory system.
R41 Risk of serious damage to eyes.

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.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

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.