



SAFETY DATA SHEET
500ML SUPER PROFESSIONAL DESCALER C15
 Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name 500ML SUPER PROFESSIONAL DESCALER C15
Product number 800-288-0004 C15
Container size 500mL

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

Identified uses Cleaning agent. Limescale remover.

1.3. Details of the supplier of the safety data sheet

Supplier Mirius™
 A Coventry Group Company
 Woodhams Road
 Siskin Drive
 Coventry
 CV3 4FX
 Tel: +44 (0) 02476 639 739
 Fax: +44 (0) 02476 639 717
 Email: sales@mirius.com

Contact person For content of safety data sheet: sds@mirius.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1865407333 (Strictly for emergencies only: incidents involving damage to human health and/or the environment)

National emergency telephone number In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318
Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Danger

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Hazard statements	H315 Causes skin irritation. H318 Causes serious eye damage.
Precautionary statements	P302+P352 IF ON SKIN: Wash with plenty of water. P332+P313 If skin irritation occurs: Get medical advice/ attention. P362 Take off contaminated clothing. P501 Dispose of contents/ container in accordance with local regulations. P264 Wash contaminated skin thoroughly after handling.
Contains	FORMIC ACID, AMMONIUM FORMATE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

FORMIC ACID			5-10%
CAS number: 64-18-6	EC number: 200-579-1	REACH registration number: 01-2119491174-37-XXXX	
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 3 - H331 Skin Corr. 1A - H314 Eye Dam. 1 - H318			
AMMONIUM FORMATE			1-5%
CAS number: 540-69-2			
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318		Classification (67/548/EEC or 1999/45/EC) Xi;R38,R41.	

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

General information	Provide eyewash station.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing. Show this Safety Data Sheet to the medical personnel.

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

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General information	Provide eyewash station.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	The product is irritating to eyes and skin. Prolonged or repeated exposure may cause the following adverse effects: Irritation and redness, followed by blurred vision. Corneal damage. Risk of serious damage to eyes.

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

Notes for the doctor	No specific recommendations.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.
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5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. Treat the spilled material according to the instructions in the clean-up section. Take care as floors and other surfaces may become slippery.
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6.2. Environmental precautions

Environmental precautions	Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid breathing vapour/spray. Do not mix with other household chemical products. Do not mix with acid.
Advice on general occupational hygiene	Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. Use appropriate hand lotion to prevent defatting and cracking of skin.

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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store at room temperature. Keep out of the reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.3. Specific end use(s)

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

Occupational exposure limits

FORMIC ACID

Long-term exposure limit (8-hour TWA): WEL 5 ppm 9.6 mg/m³

WEL = Workplace Exposure Limit

FORMIC ACID (CAS: 64-18-6)

DNEL

Workers - Inhalation; Long term systemic effects: 9.5 mg/m³
 Workers - Inhalation; Long term local effects: 9.5 mg/m³
 General population - Inhalation; Long term systemic effects: 3 mg/m³
 General population - Inhalation; Long term local effects: 3 mg/m³

PNEC

- Fresh water; 2 mg/l
 - Marine water; 0.2 mg/l
 - STP; 7.2 mg/l
 - Sediment (Freshwater); 13.4 mg/kg
 - Sediment (Marinewater); 1.34 mg/kg
 - Soil; 1.5 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). Neoprene. Nitrile rubber. Polyethylene. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact. Use appropriate hand lotion to prevent defatting and cracking of skin.

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Hygiene measures	When using do not eat, drink or smoke. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.
Respiratory protection	Respiratory protection not required.
Environmental exposure controls	Avoid releasing into the environment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Slight. Acrid.
pH	pH (concentrated solution): 2.0 - 4..0
Relative density	1.00 - 1.10 @ @ 20°C
Solubility(ies)	Soluble in water.
Explosive under the influence of a flame	Not considered to be explosive.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	Not relevant.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react with the product: Strong acids. Oxidising agents.
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10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
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10.5. Incompatible materials

Materials to avoid	Alkalis.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	Information given is based on data of the components and of similar products.
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Acute toxicity - oral

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Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	Based on available data the classification criteria are not met.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Causes skin irritation.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye damage.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
General information	This product has low toxicity.
Ingestion	May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting. Diarrhoea. May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes. May cause serious eye damage. Severe irritation, burning, tearing and blurred vision. Corneal damage.

Toxicological information on ingredients.

FORMIC ACID

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

730.0

Species

Rat

Notes (oral LD₅₀)

Harmful if swallowed. REACH dossier information.

ATE oral (mg/kg)

730.0

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Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,001.0 mg/kg)

Species Rat

Notes (dermal LD₅₀) REACH dossier information.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 7.85

Species Rat

Notes (inhalation LC₅₀) Toxic if inhaled. REACH dossier information.

ATE inhalation (vapours mg/l) 7.85

Skin corrosion/irritation

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation Data lacking.

Skin sensitisation

Skin sensitisation Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties. REACH dossier information.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

SECTION 12: Ecological Information

Ecotoxicity There are no data on the ecotoxicity of this product. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

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Ecological information on ingredients.

FORMIC ACID

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 130 mg/l, Brachydanio rerio (Zebra Fish)
REACH dossier information.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 365 mg/l, Daphnia magna
REACH dossier information.

Acute toxicity - aquatic plants EC₅₀, 72 hours: 1240 mg/l, Selenastrum capricornutum
REACH dossier information.

Acute toxicity - microorganisms NOEC, : 72 mg/l,
REACH dossier information.

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: >100 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

Ecological information on ingredients.

FORMIC ACID

Biodegradation The substance is readily biodegradable.

Biological oxygen demand 86

Chemical oxygen demand 348

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Ecological information on ingredients.

FORMIC ACID

Bioaccumulative potential Bioaccumulation is unlikely.

Partition coefficient log Pow: -1.9 at 23 °C and pH 5

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

Ecological information on ingredients.

FORMIC ACID

Adsorption/desorption coefficient - Koc: 31 @ 20°C REACH dossier information.

Henry's law constant 0.019 Pa m³/mol @ 20°C REACH dossier information.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

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Ecological information on ingredients.

FORMIC ACID

Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not discharge into drains or watercourses or onto the ground.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Reuse or recycle products wherever possible.

SECTION 14: Transport information

General The product is not covered by international regulations 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)

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 MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

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EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
 Commission Regulation (EU) No 453/2010 of 20 May 2010.
 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 (as amended).
 Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).
 Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.
 Commission Regulation (EU) No 2015/830 of 28 May 2015.

Guidance

Workplace Exposure Limits EH40.
 ECHA Guidance on the Application of the CLP Criteria.
 ECHA Guidance on the compilation of safety data sheets.
 COSHH Essentials.
 Technical Guidance WM2: Hazardous Waste.

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

DNEL: Derived No Effect Level.
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.

Revision comments

New revision number applied to comply with Commission Regulation (EU) No 2015/830 Of 28 May 2015' NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

04/09/2018

Revision

1

Risk phrases in full

R35 Causes severe burns.
 R38 Irritating to skin.
 R41 Risk of serious damage to eyes.

Hazard statements in full

H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.

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.