SAFETY DATA SHEET
SUPER PROFESSIONAL MACHINE DISHWASH C4

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

1.1. Product identifier

Product name SUPER PROFESSIONAL MACHINE DISHWASH C4

Product number 800-232-1122 C4, 800-234-0396 C4

Container size 5L, 20L

UFI UFI: WH7F-C77F-0N7P-65TN

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

Identified uses Detergent. Machine dishwashing detergent.

Uses advised against Use only for intended applications. Not for Oral Consumption.

1.3. Details of the supplier of the safety data sheet

Supplier

Mirius™
A Coventry Group Company
Woodhams Road
Siskin Drive
Coventry
CV3 4FX

Coventry Chemicals (Ireland) Limited
4th Floor
8-34 Percy Place
Dublin 4
Ireland
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

UK:
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

Ireland: For information or to report a poisoning incident contact The National Poisons Information Centre (01 8092166)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

SUPER PROFESSIONAL MACHINE DISHWASH C4

Physical hazards	Not Classified
Health hazards	Skin Corr. 1A - H314 Eye Dam. 1 - H318
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage.
Precautionary statements	P260 Do not breathe vapour/ spray. P264 Wash contaminated skin thoroughly after handling. 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. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 in accordance with local regulations.
Contains	SODIUM HYDROXIDE
Detergent labelling	< 5% non-ionic surfactants, < 5% polycarboxylates
Supplementary precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P363 Wash contaminated clothing before reuse. P405 Store locked up.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >0.1% published by the European Chemicals Agency (ECHA) under article 57 of the REACH regulation (as amended). This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYDROXIDE **5-10%**

CAS number: 1310-73-2 EC number: 215-185-5

Classification
Met. Corr. 1 - H290
Skin Corr. 1A - H314
Eye Dam. 1 - H318

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

SECTION 4: First aid measures

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4.1. Description of first aid measures

General information Get medical attention immediately. Provide eyewash station and safety shower.

Inhalation Remove affected person from source of contamination. Keep affected person warm and at rest. Get medical attention immediately. For breathing difficulties, oxygen may be necessary.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Skin contact Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Chemical burns must be treated by a physician. Get medical attention immediately.

Inhalation Severe irritation of nose and throat. May cause an asthma-like shortness of breath.

Ingestion This product is corrosive. Small amounts may cause serious damage. May cause chemical burns in mouth, oesophagus and stomach.

Skin contact May cause serious chemical burns to the skin. Causes skin irritation.

Eye contact This product is corrosive. A single exposure may cause the following adverse effects: Severe irritation, burning, tearing and blurred vision. Prolonged contact causes serious eye and tissue damage. Corneal damage.

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

Notes for the doctor Treat symptomatically. Remove contaminated clothing immediately and wash skin with soap and water.

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.

5.2. Special hazards arising from the substance or mixture

Specific hazards In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Avoid contact with the following materials: Aluminium. Zinc. Avoid contact with water. May generate heat.

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

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6.1. Personal precautions, protective equipment and emergency procedures

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

For emergency responders Wear self-contained breathing apparatus. Wear protective clothing, gloves, eye and face protection. Dilute with plenty of water. Do not allow uncontrolled discharge of product into the environment. Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions Avoid or minimise the creation of any environmental contamination. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Do not touch or walk into spilled material. Stop leak if safe to do so. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 1 for emergency contact information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin and eyes. Avoid spilling. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid the formation of mists. Provide adequate ventilation. Do not mix with other chemicals or detergents.

Advice on general occupational hygiene Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Eye wash facilities and emergency shower must be available when handling this product. Wash promptly with soap and water if skin becomes contaminated. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a well-ventilated place. Store away from the following materials: Acids. Oxidising materials.

Storage class Corrosive storage.

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

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³
WEL = Workplace Exposure Limit.

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL Industry - Inhalation; Long term local effects: 1.0 mg/m³
Consumer - Inhalation; Long term local effects: 1.0 mg/m³

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D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES (CAS: 68515-73-1)

DNEL	Workers - Inhalation; Long term systemic effects: 420 mg/m³ Workers - Dermal; Long term systemic effects: 595000 mg/kg/day General population - Inhalation; Long term systemic effects: 124 mg/m³ General population - Dermal; Long term systemic effects: 357000 mg/kg General population - Oral; Long term systemic effects: 35.7 mg/kg
PNEC	- Fresh water; 0.176 mg/l - marine water; 0.0176 mg/l - Intermittent release; 0.27 mg/l - STP; 560 mg/l - Sediment (Freshwater); 1.516 mg/l - Sediment (Marinewater); 0.152 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Personal protection	This is not a Risk/COSHH assessment. Information contained in this document should be used to conduct a risk assessment. Information given in this document relates to the neat product as supplied. In use solutions are likely to have extreme pH values, thus use of gloves and eye protection is recommended where the assessment indicates a risk of exposure.
Eye/face protection	During the manufacture and filling of this product eye protection is recommended refer to EN166. In normal use, eye protection should be used if there is risk of eye contact (for examples splashing, dripping or leaking pumps/hoses).
Hand protection	Wear protective gloves. Neoprene. Nitrile rubber. Polyethylene. Polyvinyl chloride (PVC). A break through time of >60 minutes is suggested. Gloves should be inspected regularly for damage.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Particulate filter, type P2. Particulate filters should comply with European Standard EN143.
Environmental exposure controls	Avoid releasing into the environment. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.

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Odour	No characteristic odour.
Odour threshold	No information available.
pH	pH (concentrated solution): >13.5
Melting point	Not applicable.
Initial boiling point and range	90 - 105 Degrees C.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not flammable. This product does not sustain combustion.
Upper/lower flammability or explosive limits	The product is not flammable or explosive.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not applicable.
Relative density	~ 1.10 typically @ @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	Not technically possible for a mixture.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	No information available.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	Not relevant.
Refractive index	~ 24

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reactions with the following materials may generate heat: Water. Strong acids. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Avoid contact with the following materials: Aluminium. Zinc. Tin.

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 violently with the product: Chlorohydrocarbons. Acids. Reactions with the following materials may generate heat: Water.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Acids. Ammonia. Chlorinated hydrocarbons. Aluminium. Tin. Zinc.

10.6. Hazardous decomposition products

Hazardous decomposition products Hydrogen.

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.

Other health effects There is no evidence that the product can cause cancer.

Acute toxicity - oral

Notes (oral LD_{50}) Estimated value. No specific test data are available. Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Causes severe burns. Calculation method.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage. Calculation method.

Respiratory sensitisation

Respiratory sensitisation Not sensitising. Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

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.

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Aspiration hazard

Aspiration hazard	Not classified

General information	Corrosive to skin and eyes.
Inhalation	Spray/mists may cause respiratory tract irritation. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing. May cause damage to mucous membranes in nose, throat, lungs and bronchial system.
Ingestion	May cause burns in mucous membranes, throat, oesophagus and stomach.
Skin contact	May cause serious chemical burns to the skin. Repeated exposure may cause skin dryness or cracking.
Eye contact	Causes burns. A single exposure may cause the following adverse effects: Corneal damage. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight.

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties	This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).
11.2.2 Other information	None known

Toxicological information on ingredients.

SODIUM HYDROXIDE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,000.0
Species	Rat

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,000.1
Species	Rabbit

Skin corrosion/irritation

Skin corrosion/irritation	Burning pain and severe corrosive skin damage.

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye damage.

Skin sensitisation

Skin sensitisation	Not sensitising.

SECTION 12: Ecological information

Ecotoxicity	There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

SODIUM HYDROXIDE

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Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

Acute aquatic toxicity

Acute toxicity - aquatic plants May cause long lasting harmful effects to aquatic life.

Acute toxicity - terrestrial Can cause damage to vegetation.

Ecological information on ingredients.

SODIUM HYDROXIDE

Acute aquatic toxicity

Acute toxicity - fish REACH dossier information.
LC_{50}, 96 hours: < 180 mg/l, Freshwater fish

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 40.4 mg/l, Freshwater invertebrates

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not available.

Chronic toxicity - aquatic invertebrates Not available.

12.2. Persistence and degradability

Persistence and degradability Degrades very slowly in nature.

Ecological information on ingredients.

SODIUM HYDROXIDE

Persistence and degradability The product contains inorganic substances which are not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient Not technically possible for a mixture.

Ecological information on ingredients.

SODIUM HYDROXIDE

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

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

Ecological information on ingredients.

SODIUM HYDROXIDE

Mobility The product is soluble in water.

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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.

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product is not classified as, nor contains substances classed as having endocrine disrupting characteristics at levels >0.1% by weight (according to Regulation (EU) 2018/605).

Ecological information on ingredients.

SODIUM HYDROXIDE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current UK criteria.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

SODIUM HYDROXIDE

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods The packaging must be empty (drop-free when inverted). Wash with plenty of water. Dispose of waste via a licensed waste disposal contractor. Reuse or recycle products wherever possible.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1824

UN No. (IMDG) 1824

UN No. (ICAO) 1824

UN No. (ADN) 1824

14.2. UN proper shipping name

Proper shipping name (ADR/RID) SODIUM HYDROXIDE SOLUTION

Proper shipping name (IMDG) SODIUM HYDROXIDE SOLUTION

Proper shipping name (ICAO) SODIUM HYDROXIDE SOLUTION

Proper shipping name (ADN) SODIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es)

ADR/RID class 8

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ADR/RID classification code	C5
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

IMDG Code segregation group	18. Alkalis
EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2R
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

SUPER PROFESSIONAL MACHINE DISHWASH C4

National regulations

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EH40/2005 Workplace exposure limits.
The Hazardous Waste Regulations 2005.
Control of Pollution (Special Waste) Regulations 1980 (as amended).
The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 (SI 2020 No. 1577) (as amended).
The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 696) (as amended).
The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 583) (as amended).
The Detergents Regulations 2010 (SI 2010 No. 740) (as amended). The Detergents (Amendment) (EU Exit) Regulations 2019 (SI 2019 No. 612) (as amended). The Detergents (Safeguarding) (Amendment) (EU Exit) Regulations 2019 (SI 2019 No. 671) (as amended).
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EU legislation

European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (as amended)
European Regulation (EC) No 1907/2006 - Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended)
European Regulation (EC) No 648/2004 on detergents (as amended)
Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) 1907/2006.
Waste Material Code 91/689/EEC

Guidance

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

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

EWC European Waste Catalogue
STOT RE = Specific target organ toxicity-repeated exposure
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.
PNEC: Predicted No Effect Concentration.
DNEL: Derived No Effect Level.

General information

Only trained personnel should use this material.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision. Note: Finished product SDS take their revision history from the parent bulk liquid SDS. The revision data will show that of the parent liquid. First issue of new formulation for this product name

Revision date

13/07/2023

Revision

4

Supersedes date

06/07/2018

SUPER PROFESSIONAL MACHINE DISHWASH C4

SDS number 23389

Hazard statements in full

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.