SAFETY DATA SHEET
FOURTRESS DAIRY CLEAN PLUS

According to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures.

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

1.1. Product identifier

Product name FOURTRESS DAIRY CLEAN PLUS

Product number HDD1

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

Identified uses Caustic Detergent. For professional use only.

Uses advised against Must not be used where acid based chemicals are present. Not for direct contact with Food or Beverage stuffs. Not for oral consumption. Not for use by hand.

1.3. Details of the supplier of the safety data sheet

Manufacturer Holchem Laboratories Limited
Gateway House, Pilsworth Road, Pilsworth Industrial Estate, Bury, Lancashire (UK), BL9 8RD

1.4. Emergency telephone number

Emergency telephone Out of Office Hours Emergency Information:-
For accidents and spillages involving this product that pose a threat to the environment, or human health, or require immediate first aid advice call:- +44(0) 7050 265597.
Note:- This number will not accept order queries or calls dealing with equipment breakdowns.
Irish Environmental Protection Agency 1890 335599 (This is a Lo Call Number)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Met. Corr. 1 - H290

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.
H290 May be corrosive to metals.

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Precautionary statements P234 Keep only in original packaging.
P260 Do not breathe dust.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P310 Immediately call a POISON CENTER/ doctor.
P501 Dispose of contents/ container in accordance with national regulations.

Contains SODIUM HYDROXIDE, DISODIUM METASILICATE

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. Note:- H290 Corrosive to Metals Statement relates to Damp Powder or Very Concentrated Solutions. The product is not corrosive to stainless steels at normal use strengths. This product will be very corrosive to soft metals such as Aluminium.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYDROXIDE **60-100%**

CAS number: 1310-73-2 | EC number: 215-185-5 | REACH registration number: 01-2119457892-27

Classification	Classification (67/548/EEC or 1999/45/EC)
Met. Corr. 1 - H290 Skin Corr. 1A - H314 Eye Dam. 1 - H318	C;R35

SODIUM CARBONATE **10-30%**

CAS number: 497-19-8 | EC number: 207-838-8 | REACH registration number: 01-2119485498-19-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Eye Irrit. 2 - H319	Xi;R36

DISODIUM METASILICATE **5 -<9%**

CAS number: 6834-92-0 | EC number: 229-912-9

Classification	Classification (67/548/EEC or 1999/45/EC)
Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	C;R34 Xi;R37

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SODIUM TRIPOLYPHOSPHATE		5 -<6%
CAS number: 7758-29-4	EC number: 231-838-7	REACH registration number: 01-2119430450-54-XXXX

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335	-

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

Composition comments To the best of our knowledge, all of the substances used in this product are being supported for the relevent application in REACH.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information For immediate First Aid advice in the UK, dial 111. When it is safe to do so, remove victim immediately from source of exposure. However, consideration should be given as to whether moving the victim will cause further injury.

Inhalation Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention.

Skin contact Remove contaminated clothing that is not stuck to the skin. Flush area with clean water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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 Neat product may cause chemical burns and permanent eye damage. Dilute product may cause irritation to the skin and eyes.

Inhalation Inhalation of powder dust may result in burns to the mouth, nose and respiratory tract. Inhalation of mists or vapours of diluted product may result in soreness, irritation or burns to the mouth, nose and respiratory tract.

Ingestion Unlikely route of exposure without deliberate abuse. If neat chemical is ingested, chemical burning of mouth, throat and GI tract will occur. If dilute chemical is ingested, soreness of mouth, throat and GI tract may occur together with redness and blistering.

Skin contact May cause serious chemical burns to the skin.

Eye contact May result in permanent eye damage. Powder and use solutions will cause irritation to the eyes. There is a potential for long term damage.

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

Notes for the doctor Caustic Powder, will cause severe burns if ingested, or if damp in contact with skin/eyes. Rinse well with water to neutral pH. Check for abrasion to the surface of eyes.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. If heated, corrosive vapours may be formed. In contact with some metals (Aluminium, Zinc and their Alloys) Hydrogen Gas is formed, which may form an explosive mixture with air.

5.3. Advice for firefighters

Protective actions during firefighting Protective clothing and respiratory protection should be worn when tackling fires involving this product. 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 Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions 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. Shovel into dry containers. Cover and move the containers. Flush the area with water. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections See sections 8,12 & 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Read and follow manufacturer's recommendations.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep container tightly closed. Keep only in the original container. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Keep above chemical's freezing (melting) point. Store away from the following materials: Acids.

7.3. Specific end use(s)

Specific end use(s) Detergent, refer to Product Information Sheet for full details.

Usage description This product is suitable for use in High Care Food and Dairy production areas, it is not suitable for direct contact with food.

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

SODIUM CARBONATE

Long-term exposure limit (8-hour TWA): 8 mg/m³

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WEL = Workplace Exposure Limit

Ingredient comments

As a requirement of REACH we have considered all of the components of this formulation. We believe that Sodium Hydroxide (NaOH) is the most hazardous component of this formulation. Sodium Hydroxide is not expected to be systemically available to the body under normal handling and use conditions, therefore systemic effects of Sodium Hydroxide after Dermal or Inhalation Exposure are not expected to occur. Based on data from our raw material suppliers, we understand that if the risk management measures outlined in section 8.2 are followed , the inhalation exposure is below the DNEL of 1mg/m3. Where an exposure level is quoted, a risk assessment should consider if there is a need to monitor the atmosphere of the working environment. Results should be compared against the WEL and/or DNEL information provided. The Long Term WEL refers to total exposure of a worker to a specific substance averaged out over an 8 hour period.
The Short Term WEL refers to a single exposure of a worker to a specific substance over a 15 minute period.
If the Short Term WEL is exceeded and no Long Term Limit is set, further exposure during the working shift is not permitted. Further controls should be implemented to ensure that future exposure to the substance is reduced below the levels set before the activity is repeated/continued. Where no Short Term WEL exists, guidance from the HSE is to use a value of three times the Long Term WEL.
The WEL limits are laid down in the EH40 list as supplied by the HSE. This is taken from the Chemical Agents Directive (98/24/EC). Where a worker is exposed to levels approaching a limit, further exposure control measures should be considered to reduce exposure to the substance. DNEL and/or PNEC information is supplied by manufacturers of substances in accordance with REACH legislation (Regulation (EC) No 1907/2006) , and is used to provide suitable risk reduction measures to limit exposure of the user of the substance to a non hazardous level. If the measured level of exposure by a route divided by the DNEL for the route is greater than 1, then further exposure controls should be implemented as described in section 8.2. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL

Industry - Inhalation; Long term local effects: 1.0 mg/m³
DNEL data for Professional users is not yet available, but it is assumed to be the same as for Industrial users.
Industry - Dermal; Short term local effects: 2%

PNEC

No information is available for PNEC data for Sodium Hydroxide

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Personal protection

The PPE indicated above is not a COSHH assessment. It represents PPE that should be considered during the manufacture, distribution, use and final disposal stages of this product's life cycle. It is the responsibility of employers to conduct a COSHH/risk assessment to determine appropriate PPE levels. The information given below should be used to support this assessment. Where possible replace manual processes with automated or closed processes to minimise contact with the product.

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Eye/face protection	The following protection should be worn: Full face visor or shield. Refer to EN Standard 166 to select appropriate level of protection.
Hand protection	Impervious Chemical Resistant Gloves of Butyl Rubber, PVC, Polychloroprene with a natural latex liner, all with a minimum material thickness 0.5mm and a breakthrough time of >480mins. Alternatively Nitrile Rubber, Fluorinated Rubber, both with a minimum thickness of 0.35 - 0.4mm and a breakthrough time of >480minutes. Refer to Standard EN 374 and EN 16523
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. Reference to EN 13832 and EN 943 is useful when selecting footwear and clothing.
Hygiene measures	Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Provide eyewash station and safety shower.
Respiratory protection	No specific recommendation made, but respiratory protection must be used if the general level exceeds the Workplace Exposure Limit. In the case of dust or aerosol formation (eg spraying), or vapour from hot vessels, use respiratory protection with an approved filter (P2).
Environmental exposure controls	Do not allow the substance to contaminate surface water/ground water. See points 6, 12 &13. Discharge of solutions into effluent systems (including municipal drains) or to surface water are expected to cause significant pH changes. Discharge of solutions should be carried out such that pH changes are minimised. Where necessary pH buffering measures should be adopted. Users of this product should consult local drainage and permitting authorities to ensure that any restrictions or discharge consents are adhered to.
General Health and Safety Measures.	The above requirements refer to the neat chemical. In-use solutions may have a lower classification, however, a full risk assessment should be carried out before handling any chemical(s). Risk assessments should refer to COSHH and any other relevant legislation or industry specific guidelines governing the use of chemicals.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Granular powder.
Colour	White.
Odour	Odourless to slightly acrid
Odour threshold	Not applicable.
pH	Use solutions will have a pH >13
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not available.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not applicable.

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Vapour density	Not applicable.
Relative density	Not applicable.
Bulk density	~2.5g/cm3
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	Not determined.
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Refractive index	Not applicable.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	Not applicable.
Saturation concentration	Not applicable.
Critical temperature	Not applicable.
Volatile organic compound	Not applicable.
Explosive Properties	Not Classified as Explosive
Storage Temperature Range	-5 to +40 Degrees C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Not expected to react when correctly stored and used. Mixing with other chemicals may produce unexpected reactions. Reactions with the following materials may generate heat: Strong acids.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. - See note 10.6.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Refer to section 10.1. Do not mix with acids, this will generate heat and give off corrosive vapours.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid	Strong acids. Reaction with Aluminium, Zinc, Tin, Copper or their alloys produces flammable Hydrogen Gas.

10.6. Hazardous decomposition products

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Hazardous decomposition products Does not decompose when used and stored as recommended. - See section 10.5.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin sensitisation

Skin sensitisation No evidence of skin sensitisation for any component of this formulation.

Carcinogenicity

Carcinogenicity The components of this formulation are corrosive to skin and the respiratory tract, but will not be systemically available in the body under normal conditions of handling. As a consequence it is not expected to cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility The components of this formulation are corrosive to the skin and respiratory tract, but will not be systemically available in the body under normal conditions of use and handling. As a consequence it is not expected to be toxic to the reproductive system or the developing foetus.

General information Toxic effect linked with corrosive properties. See section 4.2.

Inhalation Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose. - See section 4.2.

Ingestion May cause chemical burns in mouth, oesophagus and stomach.

Skin contact Causes severe burns.

Eye contact Risk of serious damage to eyes. May cause permanent eye injury.

Toxicological information on ingredients.

SODIUM HYDROXIDE

Toxicological effects Will cause immediate corrosion of and damage to the GI Tract, Lethal dose in man is approximately 5g.

SECTION 12: Ecological information

Ecotoxicity This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Normal use is unlikely to pose a risk to the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish This mixture is not classified as toxic to aquatic organisms.
Note:- pH values greater than 10.5 may be fatal to fish and other aquatic organisms, there may also be damage to aquatic plants.
Normal use of the diluted product is not expected to pose any risk.
See note 12.0

Ecological information on ingredients.

SODIUM HYDROXIDE

Acute aquatic toxicity

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Acute toxicity - fish	No reliable data is available for this substance. Concentrations greater than 10ppm, or a pH value equal to or greater than 10.5 may be fatal to fish and other aquatic organisms. Can cause damage to other aquatic plants. Can cause damage to vegetation.

12.2. Persistence and degradability

Persistence and degradability	This product consists mainly of inorganic components for which biodegradation assessment is not applicable. The product meets the requirements of the European Detergents Regulation 648/2004 as amended.

12.3. Bioaccumulative potential

Bioaccumulative potential	Not expected to bioaccumulate.
Partition coefficient	Not applicable.

12.4. Mobility in soil

Mobility	The product contains substances which are water soluble and may spread in water systems.

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. Other adverse effects

Other adverse effects	Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered. Do not mix with other chemicals.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. | Consideration should be given to water authority effluent permits.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3262
UN No. (IMDG)	3262
UN No. (ICAO)	3262
UN No. (ADN)	3262

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROXIDE, DISODIUM METASILICATE)
Proper shipping name (IMDG)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROXIDE, DISODIUM METASILICATE)
Proper shipping name (ICAO)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROXIDE, DISODIUM METASILICATE)
Proper shipping name (ADN)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROXIDE, DISODIUM METASILICATE)

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14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C6
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels

14.4. Packing group

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

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	1
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	88
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

EU legislation	European Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures. This replaces Directive 67/548/EEC - Classification, Packaging and Labelling of Dangerous Substances and Regulation (EC) No. 453/2010 relating to the Classification, Packaging and Labelling of Dangerous Preparations. Also considered is the REACH Regulation (EC) No.1907/2006.

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15.2. Chemical safety assessment

Pcs Information

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	(EC) No. 1272/2008 : EU Regulation on Classification, Labelling and Packaging of Substances and Mixtures. NPIS - National Poisons Information Service. vPvB - Very Persistent, Very bioaccumulative. PBT - Persistent, Bioaccumulative & Toxic. REACH - Registration, Evaluation, Authorisation & restriction of CHemicals (Regulation EC 1907/2006). DNEL - Derived No Effect Limit. PNEC - Predicted No Effect Concentration. COSHH - Control of Substances Hazardous to Health. Industry - Refers in section 8 to application of the substance in an industrial process. Professional - Refers in section 8 to application/use of the preparation/product in a skilled trade premises.
General information	This document is a Safety Data Sheet, NOT a CoSHH assessment. It is the customer's responsibility to conduct a full CoSHH assessment, taking into account the information held within this document along with other local factors considered in a risk assessment. The Risk and Hazard statements listed below are the full text of abbreviations used in this document. They are not the final classification, for this refer to section 2.
Revision comments	Product and SDS review, no change of classification. Change from transport pack group 11 to pack group 1.
Revision date	09/11/2018
SDS number	25884
Risk phrases in full	R35 Causes severe burns.
Hazard statements in full	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
REACH extended MSDS comments	REACH requires that persons handling chemicals should take the necessary risk management measures, in accordance with assessments from manufacturers and importers of chemical substances. The relevent recommendations must be passed along the supply chain. These assessments are generally reported in Exposure Scenarios. Where Exposure Scenarios have been provided for substances used in this product, the relevent information is incorporated into the safety data sheet.
END OF SAFETY DATA SHEET	