



SAFETY DATA SHEET FOURTRESS ACID WASH

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 ACID WASH

Product number HDD32

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

Identified uses Detergent. For professional use only.

Uses advised against Not for use by hand. Not for direct contact with Food or Beverage stuffs. Not for Direct Oral Consumption. Must not be used where Hypochlorite based chemicals (Bleach) are present. Must not be used in contact with Copper or its Alloys.

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. This product is registered with the NPIS. UK Environment Agency 24hour Advisory Service 0800 807060. 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 H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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Precautionary statements	<p>P234 Keep only in original packaging.</p> <p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P313 Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	NITRIC ACID
Detergent labelling	< 5% phosphates
Supplementary precautionary statements	<p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P404 Store in a closed container.</p>

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

NITRIC ACID ...%	30-60%
CAS number: 7697-37-2	EC number: 231-714-2
	REACH registration number: 01-2119487297-23-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)
Ox. Liq. 3 - H272	O;R8 C;R35
Acute Tox. 3 - H331	
Skin Corr. 1A - H314	
Eye Dam. 1 - H318	
PHOSPHORIC ACID	1-5%
CAS number: 7664-38-2	EC number: 231-633-2
	REACH registration number: 01-2119485924-24
Classification	Classification (67/548/EEC or 1999/45/EC)
Met. Corr. 1 - H290	C;R34.
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	

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 relevant application in REACH.
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SECTION 4: First aid measures

4.1. Description of first aid measures

General information	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. For immediate First Aid advice in the UK, dial 111.
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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.
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 irritation persists after washing.
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	The information given here relates to the neat chemical, dilutions may also cause chemical burns to skin and permanent eye damage.
Inhalation	Inhalation of neat product is unlikely. However, inhalation of mists or vapours of diluted product may result in soreness, irritation or burns to the mouth, nose and respiratory tract. If mixed with Hypochlorite based products (Bleach) Chlorine Gas may be evolved, this can result in irritation to eyes and difficulty in breathing. If inhaled this may result in irritation 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. Similar but less severe symptoms will be seen if dilute chemical is ingested.
Skin contact	Causes severe burns.
Eye contact	Extreme pain and blurred vision. May result in permanent eye damage.

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

Notes for the doctor	Rinse well with water to neutral pH. If mixed with Copper and its alloys toxic NO(x) gas is produced. If mixed with bleach will produce Chlorine Gas, check for respiratory disorders.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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 This product is non combustible, on heating 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. Contact with Sodium Hypochlorite liberates toxic Chlorine Gas. Toxic gases are formed when in contact with Copper and its Alloys (Brass).

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

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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 Stop leak if possible without risk. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

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 in a cool, well-ventilated place. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Store between -10 and +40 Degrees C. Store away from:- Chlorinated Detergents and Disinfectants.

7.3. Specific end use(s)

Specific end use(s) Acidic Detergent, Descaler. Refer to Product Information Sheet for use instructions.

Usage description This product is suitable for use in food and beverage processing plants, but it is not designed for direct food contact.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

NITRIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 2 ppm 5.2 mg/m³

Short-term exposure limit (15-minute): WEL 4 ppm 10 mg/m³

PHOSPHORIC ACID

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit

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Ingredient comments

As a requirement of REACH we have considered all of the components of this formulation. We believe that Nitric Acid is the most hazardous component of this formulation. Nitric Acid is not expected to be systemically available to the body under normal handling and use conditions, therefore systemic effects after Dermal exposure are not expected. Based on data from our suppliers, we believe that if the risk management measures outlined in section 8.2 are followed users will comply with the requirements of REACH for the expected use of this product. 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. Where new information becomes available under REACH, this will be passed on as revisions to the Safety Data Sheet.

PHOSPHORIC ACID (CAS: 7664-38-2)

DNEL

- Inhalation; Long term local effects: 2.92 mg/m³

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

If use of this product generates dust, mists, vapours or fumes, process enclosures or local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits quoted in this msds or other data sources.

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.

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

Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC). 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

Provide eyewash station and safety shower. Promptly remove non-impervious clothing that has become contaminated, provided it is not adhered to the skin. Contaminated clothing and shoes must be discarded.

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Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
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.
General Health and Safety Measures.	The above classification relates to the neat product. At 5% this product would be classified as H315 (Skin Irrit 2) and H318 (Eye Damage 1). A risk assessment should be performed, but we recommend use of gloves and eye/face protection. 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. Note: Mixing use solutions with Bleach or other Sodium Hypochlorite based products will produce toxic Chlorine gas.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless to pale yellow.
Odour	Pungent. Acidic.
Odour threshold	Not available.
pH	pH (concentrated solution): 0 - 1 pH (diluted solution): 1 - 2 @ 1%
Melting point	<0 Degrees C
Initial boiling point and range	Not applicable.
Flash point	Not applicable. Contains no Flammable Components
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.27 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable. Technically not feasible.
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.

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Oxidising properties Not applicable. 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 -10 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. Stable under normal temperature conditions and recommended use. Avoid contact with caustic/alkaline material; this will generate heat and potentially corrosive vapour. Avoid contact with bleach and other hypochlorite based products; this will produce toxic Chlorine gas. Reaction with Copper and its Alloys will produce a noxious green (NOx) gas.

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 Hypochlorite based chemicals, this will result in the generation of toxic chlorine gas.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Avoid contact with reducing agents Contact with Hypochlorite based products will liberate Toxic Chlorine Gas. Reaction with Copper and Brass can produce toxic green NOx gases.

10.6. Hazardous decomposition products

Hazardous decomposition products Toxic gases/vapours/fumes of: Oxides of the following substances: Nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Respiratory sensitisation

Respiratory sensitisation No evidence of respiratory sensitisation for any component of this formulation.

Skin sensitisation

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

Carcinogenicity

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Carcinogenicity	The components of this formulation will not be systemically available in the body under normal conditions of handling. As a consequence it is not expected to cause cancer.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	The components of this formulation 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 developing foetus.
General information	
Inhalation	Unlikely route of exposure. Inhalation of sprayed droplets may result in soreness of the throat, mouth and nose.
Ingestion	May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	Causes burns.
Eye contact	Risk of serious damage to eyes. May cause permanent eye injury. - See section 4.2.

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.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish

This mixture is not classified as toxic to aquatic organisms.
It is advisable to check discharge permits for Phosphate limitations.

12.2. Persistence and degradability

Persistence and degradability This product consists solely of inorganic materials for which biodegradation assessment is not applicable.

12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to bioaccumulate.

Partition coefficient

Not applicable. Technically not feasible.

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 of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3264
UN No. (IMDG)	3264
UN No. (ICAO)	3264

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID ...%, PHOSPHORIC ACID)
Proper shipping name (IMDG)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID ...%, PHOSPHORIC ACID)
Proper shipping name (ICAO)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID ...%, PHOSPHORIC ACID)
Proper shipping name (ADN)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID ...%, PHOSPHORIC ACID)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID label	8
IMDG class	8
ICAO class/division	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-A, S-B
Emergency Action Code	2X
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

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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.

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.
PBT - Persistent, Bioaccumulative & Toxic.
vPvB - Very Persistent, Very bioaccumulative.
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. Only trained personnel should use this material. 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 Launch

Revision date 03/08/2018

SDS number 25123

Risk phrases in full R34 Causes burns.
R35 Causes severe burns.
R8 Contact with combustible material may cause fire.

Hazard statements in full H270 May cause or intensify fire; oxidiser.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

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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 relevant 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 relevant information is incorporated into the safety data sheet.

END OF SAFETY DATA SHEET

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. All composition information is based on suppliers data.